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The ARCHITECTVRAL RECORD

OCTOBER 1927

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The ARCHITECTURAL RECORD

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Published Monthly by F. W. DODGE CORPORATION, 115-119 West 40th Street, New York. Yearly Subscription: United States, Insular Possessions and Cuba, $3.00; Canada, $3.60; Foreign, $4.00.

Single Copy, 35 cents. Member, AUDIT BUREAU OF CIRCULATIONS *and* ASSOCIATED BUSINESS PAPERS, INC.

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CLEVELAND
UNION
TERMINAL
Cleveland, Ohio

Architects—GRAHAM, ANDERSON, PROBST & WHITE, Chicago, Illinois
Contractors—JOHN GILL & SONS, Cleveland, Ohio

A WALL of the Cleveland Hotel, which was laid up in Carney Cement ten years ago this winter, had to be wrecked for the purpose of tying-in with the new Union Terminal. Mr. Henritze, the brick foreman gave the following account of the operation.

"They started wrecking the brickwork from the roof with chisels and hammers. The mortar was so tough and hard, and had adhered to the brick so well that they had to resort to air drills, which they found to be the only possible way to make speed. Several of the wrecked panels were thrown down, thinking that they would break when they hit the ground. No brick could be saved on account of the mortar still adhering to the brick."

If any of the walls of the new Union Terminal ever have to be torn down, air drills will again be needed. Carney Cement was used for this mortar—also during freezing weather.

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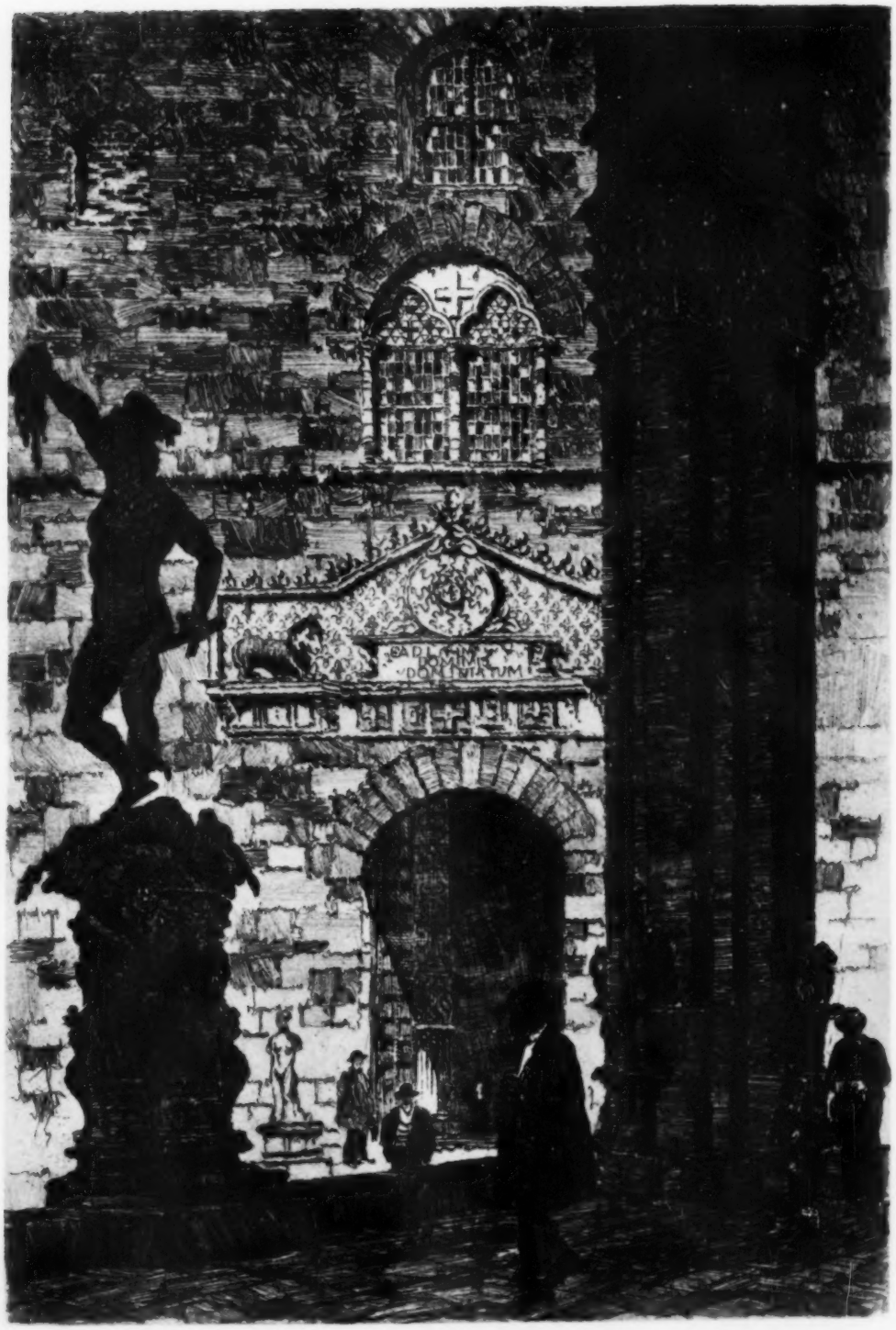


A View of the Main Portal of the Palazzo Vecchio in Florence,
As Seen from the Loggia de' Lanzi

The ARCHITECTVRAL RECORD

VOLUME 62 OCTOBER, 1927 NUMBER 4

The FIELD HOUSE of the VNIVERSITY of WEST VIRGINIA MORGANTOWN, WEST VIRGINIA

DAVIS, DUNLAP & BARNEY, *Architects*

By Harold Donaldson Eberlein

THE FIELD HOUSE for the University of West Virginia offers the solution of a problem that confronts more than one of the lesser universities and colleges throughout the country. The problem is not a particularly new one, although in recent years it has reached far more acute stages than it ever manifested in the period when physical training and college athletics were not matters of such solicitude to the academic authorities as they are to-day—were, in fact, regarded more or less on sufferance as concessions to the exuberant animal spirits of the student body.

The problem, briefly stated in an all-inclusive form, is this—first, to provide becoming and adequate quarters for the various athletic activities sponsored by the college authorities, ample enough not only for the practice and training of the different teams and of the students competing for places on them, but also for the field exercise and gymnastic training of the students in general who are not especially concerned with any of the recognized teams or with competition for them; second, to make these quarters as comprehensive as possible in their function, avoiding a multiplicity of buildings adapted only to specialized purposes and hence restricted in the sphere of their usefulness. The available funds thus spent on erecting and equipping buildings for athletic purposes benefit *all* the students and not merely a small minority of those whose proficiency in one sort or another of athletics renders them least in actual *need* of physical training. It is all very well to have a number of special buildings devoted to this or that exclusive purpose, when generous endowments or abundant alumni subscriptions make it possible, but when the money available for building and equipment is narrowly limited, and every penny expended is ex-

pected to produce the maximum result, it is imperative, for the good of the college and in fairness to the student body at large, to combine a number of functions in one building, as far as practicable, and to make that one structure thoroughly comprehensive in its efficiency.

The original programme of building to accommodate the athletic activities and physical training for the University of West Virginia, at Morgantown, was conceived according to the methods prevailing at other small universities and colleges. The buildings were fully planned and the working drawings made. Upon more mature consideration, however, the authorities reached a momentous decision. While the scheme first approved compared favorably with what had recently been done in other places, it was felt that the system was fundamentally wrong and was susceptible of great extension by way of improvement.

This first scheme was quite abreast of the times, it is true. It contemplated all the usual features and afforded reasonably adequate accommodation for a certain number of requirements, but there were certain other demands that could not be taken care of without additional buildings, and there was no provision for the needs of a large number of students who were not identified in some way with one or another of the favored teams.

It was, therefore, determined to adopt an altogether different mode of dealing with the situation and to have one large building that should be completely comprehensive in its scope. With this new ideal in view, the plans that had already been prepared were entirely discarded and the whole problem was studied *de novo*. The result of the revised scheme is embodied in the Field House now in course of erection. In the extent of its provisions it is wholly unlike anything that has been carried out in America before, and its completion will mark the establishment of a precedent in one branch of American collegiate architecture that will no doubt be followed in other places.

The authorities of the University of West Virginia inserted a clause in the contract that called for a thorough study of modern conditions of physical training in colleges so that the building they were about to erect would be "not only up to date, but a date ahead."

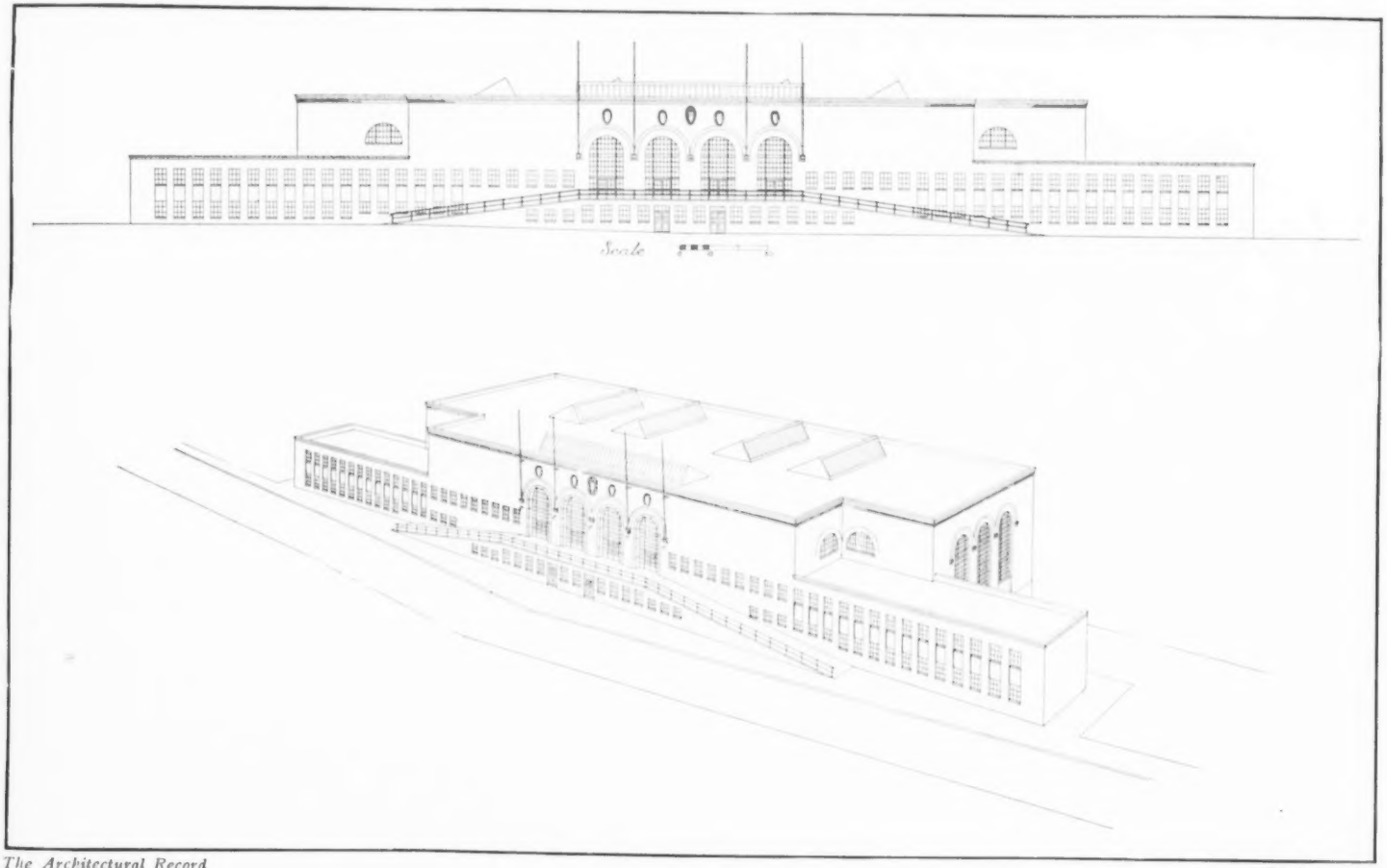
The exact problem confronting the trustees of the University of West Virginia was this. There was just money enough available to build a gymnasium of the ordinary dimensions and equipment, along with basket ball courts. With this arrangement, when there was a basket ball game going on, everything else had to stop and most of the building became useless. Clearly this did not meet the needs of two thousand students.

In the first place, by no means all of the students played basket ball or wished to play basket ball. In the second place, only a small number of the students *could* play basket ball at any one time, and when the basket ball courts were in use by this small minority all the rest of the students were blocked from doing anything else whatever in the building. In the third place, there was either insufficient provision or else no provision at all for the track squad, for boxing, for indoor tennis and squash, or for various other activities, all of which properly come under the head of physical training, and last but by no means least, there was no adequate place for seating spectators at match games and contest meets.

What was urgently wanted before all else was a place where two thousand men on the university's rolls could get proper exercise and training, a building that could be used by *all* and not merely for the greater part of the time by a chosen few, a building that could be used in every part all the time.

This structure, when completed, will *not* be merely a gymnasium, although it will contain essential gymnasium accommodations. It is planned to meet the constant needs of two thousand students. Very considerably more than one acre will be under roof and the structure is built on the unit system so that at any time the building can be extensively added to and, if necessary, doubled in capacity.

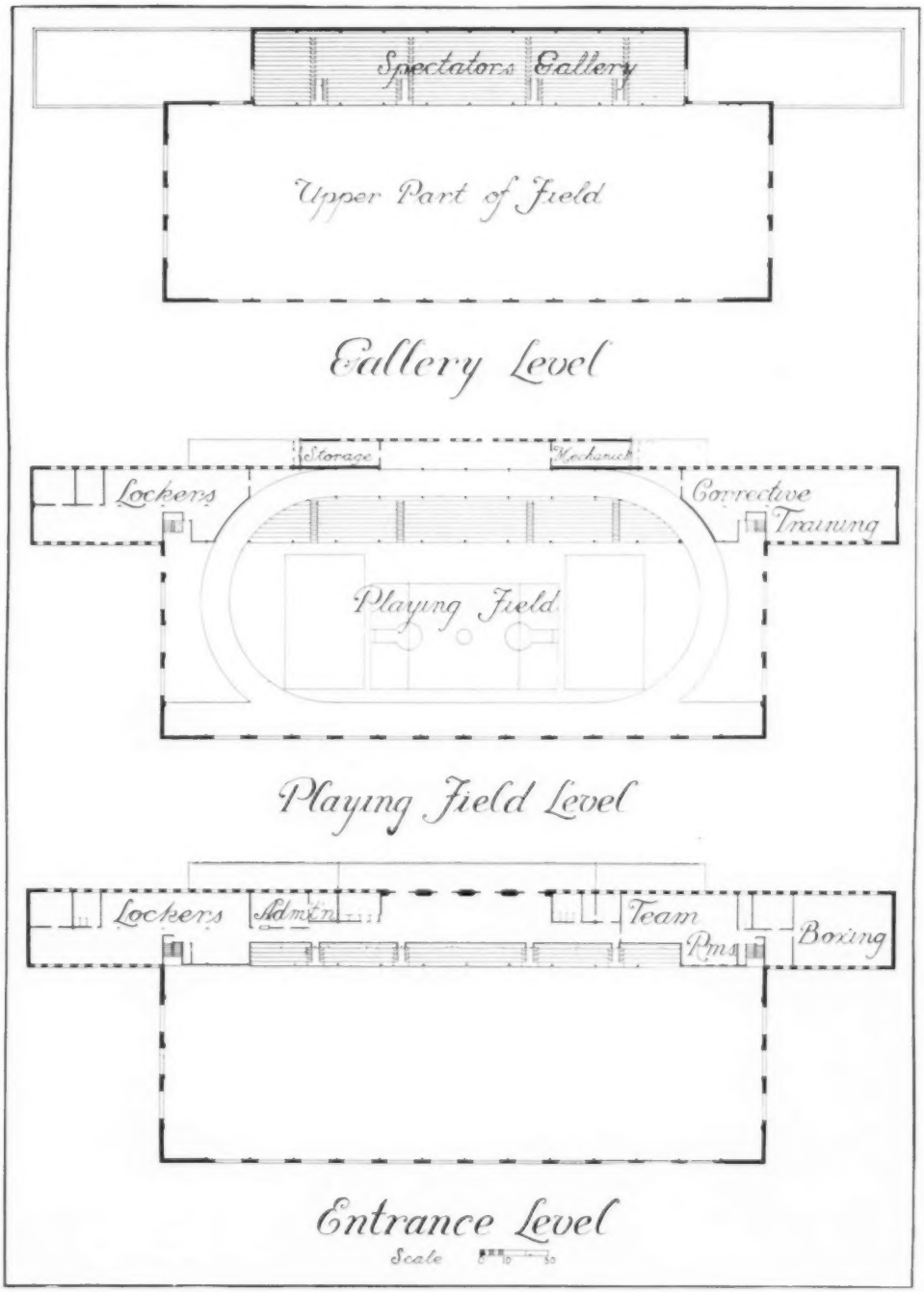
Examination of the plans and section will show that the arrangements are so



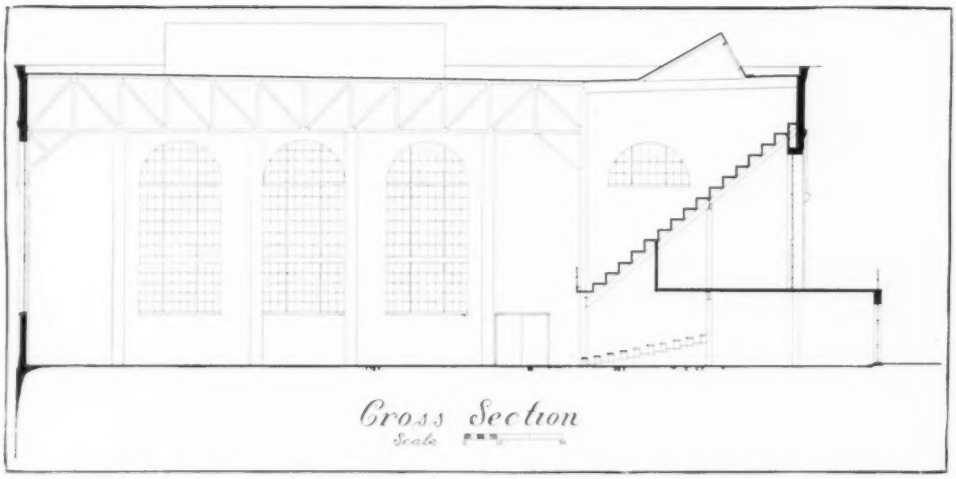
Front Elevation and Perspective Drawings of Field House

FIELD HOUSE OF THE UNIVERSITY OF WEST VIRGINIA, MORGANTOWN, WEST VIRGINIA

Davis, Dunlap & Barney, Architects



FIELD HOUSE OF THE UNIVERSITY OF WEST VIRGINIA
Davis, Dunlap & Barney, Architects



FIELD HOUSE OF THE UNIVERSITY OF WEST VIRGINIA
Davis, Dunlap & Barney, Architects

made that a track squad of one hundred and fifty men can exercise without interference and that four basket ball games can be going on all at the same time without any conflict. For inter-collegiate games and varsity practice games the floor space has been arranged for two medium-sized basket ball courts and a full-sized varsity court. For the basket ball games and for track meets there is also ample seating capacity for two thousand eight hundred spectators.

There are likewise rooms for corrective training appointed with all manner of requisite apparatus; rooms set apart for boxing and wrestling, and for fencing and rowing; a large space is devoted to acrobatics and other forms of gymnastic exercises.

The main floor of the building is of dirt, rolled and treated so as to keep down the dust. Over a part of this space provision has been made for putting down temporary floors on the occasion of match games and boxing. With this dirt floor part of the space can be used, whenever desired, for indoor tennis courts. As the university has military training, this large dirt floor area can be used as a drill ground, and it is likewise suitable, when required, for the staging of pageants and for events in connection with commencement exercises. In inclement weather, too, it is perfectly possible for the baseball and football teams to practice here.

There is a four-lane cinder track, of ten laps to the mile, with a radius of 46 feet 6 inches at the central point. The track is slightly banked at the curves. There is an eighty yards straightaway course and all track events can be constantly practised during the winter months, no matter what the weather conditions may be outside. One of the great economies in the scheme of the building has been effected by letting a part of the track run underneath the grand stand.

The entire building has been constructed with the greatest economy. Outside, the walls are of common orange-red brick with white mortar joints. Such ornamental details of trimming as there are, are of cut limestone. Inside, the walls are of common brick and building tile. No plaster is used. The walls of the main rooms are left the natural color of the brick; the smaller rooms are painted white.

Metal sash is used throughout and all the glazing in the building will be of factory ribbed glass so that the light will be thoroughly diffused. There is also a series of saw-tooth factory skylights, with a north light, so as to ensure ample lighting for the main floor space. The roof is a slag composition of tar and gravel.

© Chicago Aerial Survey Co.

Aeroplane view of Chicago looking north from Twenty-second Street, showing present channel of Chicago River and railroad yards which choke South Side development. Proposed new channel is indicated by dotted lines. Railroad terminals, new island on south shore and filling-in at Lincoln Park (upper left corner) are also shown

October, 1927

CHICAGO'S TRAFFIC PROBLEMS SOLVED BY BURNHAM PLAN

By

Anne Lee

UNTANGLING CHICAGO'S distorted traffic arteries was a problem of major concern when Daniel Hudson Burnham devised his ambitious plan for the improvement and beautification of the city.

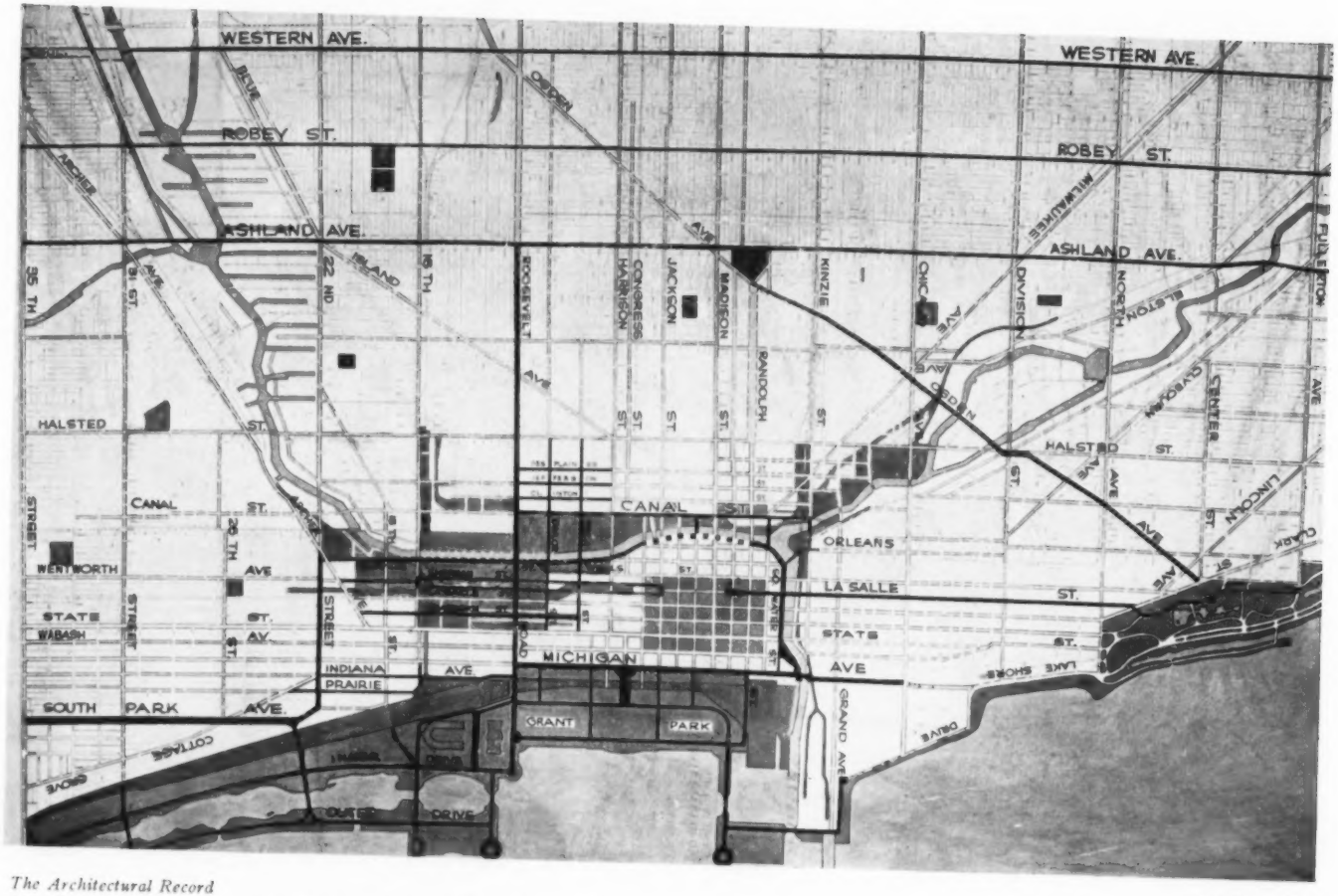
By a phenomenal growth in the thirty years from 1860 to 1890, Chicago advanced her rank from eighth to second place in the list of the country's most important cities, a position it has retained by trebling its population since that time. This rapid and unorganized development resulted in congestion that steadily increased and reached serious proportions. To bring order and beauty out of this chaos, consequently, imposed a gigantic task on the pioneer city planner and the men who worked with him in creating the Chicago Plan.

Expansion of the business district to relieve congestion was a salient feature of this plan which was adopted in 1910, just two years prior to Mr. Burnham's death. The first step was the formation of the Chicago Plan Commission to act in an advisory capacity and thus aid the city in the execution of the plan. Work had only commenced when activities were halted by the war, but the last shouts of the armistice celebration had hardly died down before Chicago set her shoulders to the wheel with her indomitable spirit of "I Will", and in the past nine years miracles have been performed.

Like a giant serpent writhing to gain its freedom, Chicago is striving to loosen the shackles of congestion. In a large measure she has already succeeded. Throughout the city, important streets have been widened; new streets have been cut through miles of solid buildings; many new bridges have been erected; new shore land has been acquired by accretion or fill for improvement with parks and drives; the river front has been rid of the unsightly produce warehouses with their attendant filth and congestion, which heretofore monopolized the district along the wharves, and in their stead has arisen a broad, beautiful, double-decked drive (the first of its kind), built to the water's edge, across which lofty skyscrapers now cast tall shadows to mirror their jeweled towers in the clear water below. Beginning at the point east of Canal Street, where the Chicago River splits to form the north and south branches, this drive, called Wacker Drive in honor of Charles H. Wacker, for years chairman of the Chicago Plan Commission, now parallels the water front for a little more than a mile to Michigan Avenue. It is to be extended to the lake, a mile east, where Wacker Drive and a similar drive to be built along the north river front will connect with the Outer Drive, planned to give the city ultimately a lake shore thoroughfare running the full length of its twenty-six miles.

The new Union Station has completely regenerated the district just west of the Chicago River which is now attracting such developments as the new homes for the Chicago Daily News and the Chicago Civic Opera Company.

Other sections of the city, likewise, are hopeful of equalling the record of the near North Side, which developed into a flourishing center for high-class shops and offices as the result of the extension of Michigan Avenue and the erection of the double-decked bridge across the Chicago River. For the time being, the near South Side is contenting itself with a policy of watchful waiting preparatory to duplicating the history of the North Side when its traffic arteries shall have been cut through.



The Architectural Record *October*, 1927

Map showing fourteen of the fifteen Chicago Plan improvements now under way or completed

The Architectural Record *October*, 1927

Drawing showing the Field Museum, Soldiers' Field and the proposed Railway Station for the Illinois Central Railroad, Chicago

Aeroplane view which shows the proposed extension of Wacker Drive east to Lake Michigan and the proposed parallel drive along the north bank of Chicago River; also the contemplated link between the Outer Drive (which now ends at Randolph Street), and Lake Shore Drive. Dotted lines show extension of Outer Drive directly north to Wacker Drive and the alternative plan under consideration which involves the extension of Randolph Street to the lake

A quadrangle of wide streets, a greater loop, two or three times the size of the elevated railway loop within which Chicago's business was virtually confined up to a few years ago, now permits through-traffic to skirt the congested section instead of going through it. Thus, by making improvements to facilitate expansion, is Chicago bursting the bonds of the natural and artificial barriers imposed by the Chicago River on the north and west; by Lake Michigan and the Illinois Central Railroad on the east; by a vast area of railroad yards on the south and by the elevated railway loop in the downtown section.

The correction of traffic ills involves not only streets but the Chicago River as well. An awkward bend in the South Branch, between Roosevelt Road (formerly Twelfth Street) and Eighteenth Street—rather a series of bends which make the river channel at that point resemble the lower half of a hexagon—has seriously handicapped the development of Chicago's near South Side because important streets to and through the downtown section are obstructed. The situation is aggravated by the vast railroad yards occupying land on both sides of the river aggregating a square mile which adds further obstruction to the natural river obstruction. In this area there is now only one through north and south street, Clark Street, and there are no through east and west streets. The importance of this condition will be appreciated when it is remembered that this district is only half a mile south of valuable loop property.

However, the barriers which have choked the South Side are now to be removed; in fact, work is already well under

Aeroplane view of Chicago looking west from Lake Michigan showing the extension of Michigan Avenue and the "double-decked" Wacker Drive

way. The river channel is to be straightened, there is to be a readjustment of railroad property, and streets are to be carried through. This improvement will provide three additional north and south streets (Dearborn, LaSalle and Franklin), and two east and west streets (Fourteenth and Sixteenth), all of which are through traffic arteries, in an area now served by only one. It is obvious that extensive development is expected to follow.

The river straightening project represents one of the most important elements of the Chicago Plan. Because of the rearrangement of the railroad facilities involved therein, work was dependent upon a solution of the railway terminal problem. Chicago has been trying to get all the railroads which now use the four terminals south of the loop to agree upon a common terminal. The Illinois Central Railroad, which has already electrified its suburban service and is ready to build a new terminal on Roosevelt Road at the lake front, has invited the thirteen railroads which now use the LaSalle Street, Dearborn Street and Grand Central Stations to utilize its terminal facilities, but, so far, no agreement has been reached. Present indications are that the Illinois Central will build its own terminal and that the other three stations will combine and build a new terminal to accommodate their roads. It is on this assumption that plans for new tracks have been drawn. Should the project for a common lake front terminal still materialize, however, trains could be converted with a minimum amount of track revision.

Although actual work on the river straightening commenced only a few months ago, a staff of men under the direction of Edward J. Noonan, consulting engineer in charge, worked for many months making the necessary surveys and preparing drawings. Both the Citizens

Committee on River Straightening and the City Council Committee on Railway Terminals spent several years in working out the preliminary problems, enlisting the co-operation of the fourteen property-owners involved, studying land values both before and after the straightening and adjusting the increases in valuation arising out of transfer of property from the west side of the old channel to the east side of the new.

Field Museum of Natural History and Soldiers' Field Stadium, Chicago

Based on the valuations worked out by the committees in charge, the total value of the property involved was given by Mr. Noonan as $8,900,000 (in round figures) before the straightening and $13,900,000 after the straightening, showing an increase in valuation of $5,000,000 as a result of the improvement. This amount deducted from the cost of the work, estimated at $7,000,000, will leave a balance of $2,000,000 to be borne by the city. To simplify the readjustment of property, all owners of the property involved deeded their land to a trustee created for the emergency, for which they received a total credit of $8,900,000. After the work has been completed, the trustee will deed the new property to the various owners, receiving a total of $13,900,000 therefor.

It is estimated that the work will require five years. Present plans are to use floating excavators inasmuch as the flow of water aids excavation. This is the slowest and cheapest process. But the engineer may later decide that a dry job will be more advantageous, particularly on account of the time element. The old channel must be kept open until the new channel is ready for use, both because of the navigation demands and because there can be no interference with the volume of water required to dilute Chicago sewage. Inasmuch as the excavated material from the new channel cannot be piled up on the bank to be used for filling the old channel because the land will be in use for railroad purposes, arrangements have been made to sell the waste to the South Park Commissioners for use in their reclamation of the southern lake front and to fill the old channel with sand hauled by boat.

At present, the Baltimore & Ohio Railroad switch tracks are right in the middle of the proposed channel. Nothing can be done until they are freed. The initial work was begun early last July when ground was broken for the foundations for two bridges over the proposed channel,—a wide vehicular traffic bridge at Roosevelt Road and a new railroad bridge for the B. & O. G. T. R. R. just north of Sixteenth Street. As soon as the B. & O. bridge is completed, new tracks will be laid between the old channel and the proposed channel, the old tracks (those now located in what will be the new channel) will be torn up, and dredging will com-

The new Lake Front Park now under construction. A lagoon six hundred feet wide and six miles long extends from the center of Chicago south along the shore of Lake Michigan. Nearly 1,200 acres of land are being reclaimed from the lake for this development

mence as soon as the Roosevelt Road bridge has progressed far enough to permit dredging under it, according to the consulting engineer's explanation to the writer.

Through the utilization and development of air rights over the railroads, extensive improvements in taxable property are anticipated for this region by Mr. Noonan, who believes the district will eventually become a center for light manufactories, distributing houses and office buildings. The distance between the river and Clark Street, which is now only 150 feet, will be 1,000 feet after the completion of the river straightening. This area of approximately three city blocks will provide a space over half a mile long and one thousand feet wide for development in regular city fashion because of its rectangular shape.

Some of the streets to be cut through this area and the straightened river channel are shown in the Plan of Chicago improvements map on Page 264.

Rich potentialities lie in the air right developments which will inevitably follow the building of streets over railroad property. Utilization of air rights over the Illinois Central yards which now monopolize the section from Randolph Street north to the river and from the lake to within a few hundred feet of Michigan Avenue, a district surrounded by high-class shops and office buildings, will open up a very valuable and desirable area. Chicago's first air right building permits were issued only recently for two large buildings which are being built simultaneously: the wholesale warehouse of Marshall Field & Co. over the Chicago & Northwestern Railroad on the north shore of the river, for which Graham, Anderson, Probst & White are the architects, and the plant of the Chicago Daily News over the Union Station tracks on the west shore of the river, for which Holabird & Roche are the architects. These are the forerunners of vast potential "air right" buildings which will

Fig. 1. Present Condition

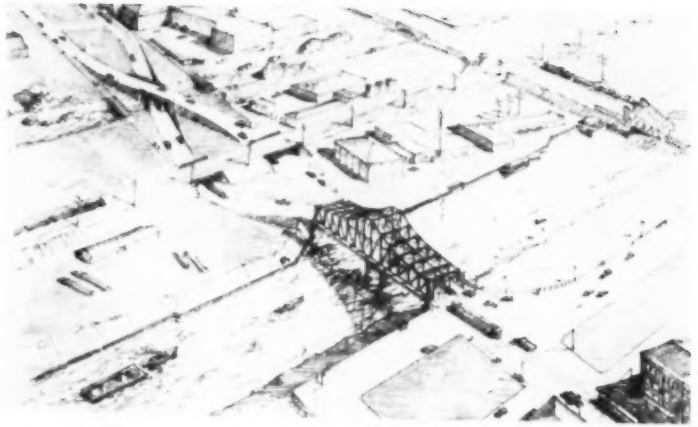


Fig. 2. First Improvement

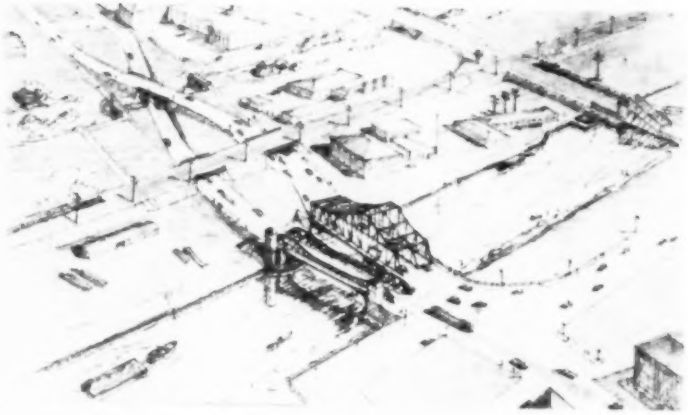


Fig. 3. Second Improvement

Fig. 4. Final Plan

RECOMMENDED IMPROVEMENT IN INTERSECTION OF WESTERN AVENUE AND MARSHALL BOULEVARD

Fig. 1 shows how Marshall Boulevard traffic crosscs Western Avenue at a sharp incline at a bridge approach. All traffic uses the same bridge over the Sanitary Canal. Fig. 2 shows bridge over Sanitary Canal turned round. Western Avenue traffic is to cross the Illinois and Michigan Canal at a new low level, while Marshall Avenue traffic will continue to cross at the present high level. Fig. 3 shows a new bridge built over the Sanitary Canal for Western Avenue traffic, the existing bridge being used for Marshall Boulevard traffic only. Fig. 4 shows a second new bridge across the Sanitary Canal built for the exclusive use of Marshall Boulevard traffic

follow Chicago's development of "air right" streets.

The same careful study devoted to these special street and river projects has characterized the city's efforts in improving scores of traffic arteries throughout its length and breadth. Western Avenue, which boasts of being "the longest street in the world," for example, is being widened from sixty-six feet to one hundred feet its entire length of twenty-six miles from the northern to the southern city limits.

The resourcefulness and thoroughness with which the Chicago Plan attacks traffic problems is illustrated on Page 270 by the four drawings of the intersection of Western Avenue and Marshall Boulevard, two main west side thoroughfares. The illustrations show the recommended improvement, by logical and economical stages and without disturbing traffic, in order to eliminate congestion and danger and finally to separate boulevard from commercial and street car traffic.

Street improvements within the city are materially enhanced in value by a co-operative highway development program governed by the Chicago Regional Planning Association within an area of fifty miles outside the city limits. Likewise, the Plan Commission co-operates with the highway improvement plans of the County of Cook, the State of Illinois and the Federal Bureau of Public Roads, which will result in the co-ordination of the highway programs of these several agencies into a single major plan. The Plan contains a recommendation for a system of good roads and exterior highways radiating out in fan-shape from Chicago and encircling the city in three great belts. Practically all of this system within Cook County has already been improved by the Board of Cook County Commissioners.

By means of this system of good county roads, the recreational facilities of the forest preserves are available for the city's millions. The forty-three parcels of woodland that comprise the Cook County Forest Preserves, aggregating more than 30,000 acres, encircle Chicago from the shore of the lake at the Indiana state line on the south to the edge of the lake, again, near Glencoe on the north. For the most part, the preserves have been left in their natural state, but drinking fountains, shelters, camping sites, golf courses, baseball diamonds, tennis courts, athletic fields, picnic grounds and swimming and wading pools have been added for the comfort and enjoyment of visitors.

Another extensive recreational program recommended by the Chicago plan is included in the lake front developments. Lincoln Park on the north shore has already acquired a vast acreage by reclamation. Each year the shore of Lake Michigan at the northern end of the park is pushed farther east as new land is made. Eventually the park will extend continuously to Devon Avenue, giving it a length of six miles, more than two-thirds of which will have been reclaimed. Elaborate recreational facilities, including bathing beaches, boat harbors, golf courses, bridle paths and a ski-jump, are part of the improvement plan. Picturesque drives through the park area and the extension of Outer Lake Shore Drive are also planned.

Grant Park, at the lake front just opposite the downtown business section, is practically all made-land. Chicago did not appreciate the possibilities of her shore seventy-five years ago when she forced the Ilinois Central Railroad to lay its tracks there, a blunder corrected only recently when the railroad surrendered its riparian rights to the six miles of shore between the loop and Jackson Park in return for certain considerations.

Reclamation of this shore land for recreational purposes, now well under way, is one of the most fascinating features of the Chicago Plan. It appeals to the imagination and seems little short of magic, for where dredges, dump-carts and sand-suckers are now diligently at work there soon will be 1,138 acres of park. Besides filling in the shallow water, just east of the railroad tracks, 600 ft. farther out in the lake there is being created a series of islands which will be connected by bridges and parallel the new shore-line park for the entire six miles between Jackson and Grant Parks.

Fig. 1. Present Condition

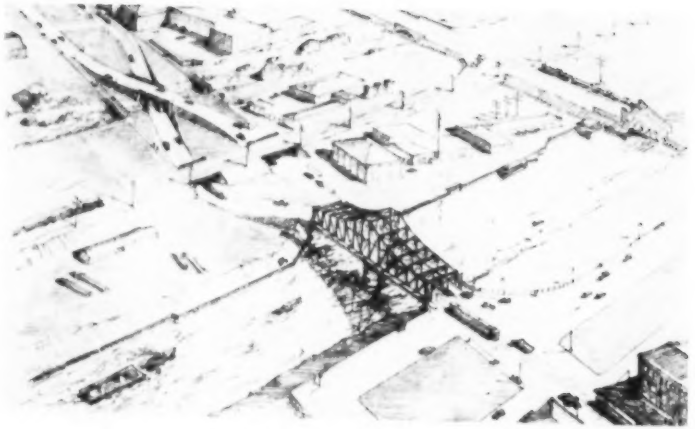


Fig. 2. First Improvement

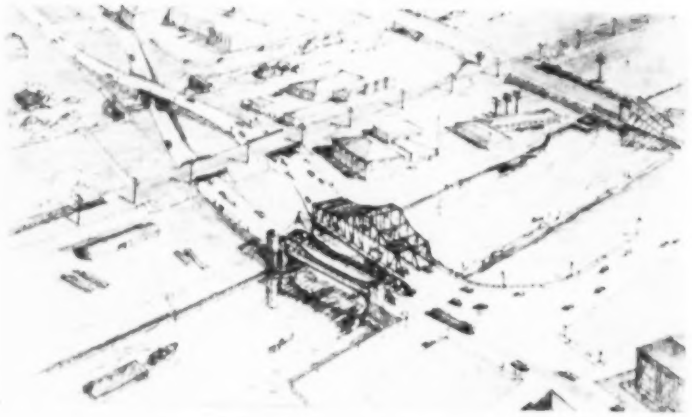


Fig. 3. Second Improvement

Fig. 4. Final Plan

RECOMMENDED IMPROVEMENT IN INTERSECTION OF WESTERN AVENUE AND MARSHALL BOULEVARD

Fig. 1 shows how Marshall Boulevard traffic crosses Western Avenue at a sharp incline at a bridge approach. All traffic uses the same bridge over the Sanitary Canal. Fig. 2 shows bridge over Sanitary Canal turned round. Western Avenue traffic is to cross the Illinois and Michigan Canal at a new low level, while Marshall Avenue traffic will continue to cross at the present high level. Fig. 3 shows a new bridge built over the Sanitary Canal for Western Avenue traffic, the existing bridge being used for Marshall Boulevard traffic only. Fig. 4 shows a second new bridge across the Sanitary Canal built for the exclusive use of Marshall Boulevard traffic

follow Chicago's development of "air right" streets.

The same careful study devoted to these special street and river projects has characterized the city's efforts in improving scores of traffic arteries throughout its length and breadth. Western Avenue, which boasts of being "the longest street in the world," for example, is being widened from sixty-six feet to one hundred feet its entire length of twenty-six miles from the northern to the southern city limits.

The resourcefulness and thoroughness with which the Chicago Plan attacks traffic problems is illustrated on Page 270 by the four drawings of the intersection of Western Avenue and Marshall Boulevard, two main west side thoroughfares. The illustrations show the recommended improvement, by logical and economical stages and without disturbing traffic, in order to eliminate congestion and danger and finally to separate boulevard from commercial and street car traffic.

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The enclosed waterway or lagoon thus created will cover an area of approximately 343 acres, affording opportunity for regattas, rowing, boating, bathing and skating. Bridges over the lagoon will make the islands accessible from the shore park which will be connected with the mainland by viaducts over the depressed railroad tracks. Every advantage will be taken of the recreational possibilities of this lake front playground.

The northern portion of this park has been completed for some time. It is there that the Field Museum of Natural History and the Soldiers' Field Stadium are located. There, too, the $3,000,000 Shedd Aquarium is to be built. Just opposite this area to the east, an irregularly-shaped bed of sand gleams in the sunlight to announce that the first of the series of magical islands is materializing. Recent aviation activities prompted the city's proposal to utilize the new island as a landing field for planes, a matter now under consideration.

Drives to be known as the Inner Drive and the Outer Drive will be built along the full lengths of the new south shore and island parks to connect with the Inner Drive, which has already been finished from Twenty-third Street north to Roosevelt Road, and the Outer Drive which now follows the shore of Grant Park to Randolph Street and is soon to be extended to connect with Lake Shore Drive at Grand Avenue. This will complete a continuous boulevard running north and south along the lake front for the full twenty-six mile length of the city, and will form a link between the Lincoln and Dixie Highways south of Chicago and Sheridan Road on the north shore. Driving through this extensive water front development will afford a succession of park vistas, glimpses of the lake, views of beautiful residential districts and high-class business developments.

It is such ambitious and idealistic proposals as these embodied in Burnham's Chicago Beautiful Plan that, at first, made many believe his dreams too visionary for realization. But the developments of the past few years have made boosters of the doubters. Without ceasing her labors, Chicago now rears her head in civic pride and views her accomplishments with a rightful satisfaction. And her citizens applaud her efforts by promptly approving all bond issues proposed for municipal improvements. Another five years will suffice to see the materialization of practically all the dreams of the pioneer city planner and his associates.

When Chicago, then, shall beckon the world to note how she loosened the shackles of congestion, acquiring withal a new and startling beauty, the Chicago Plan Commission and the various related organizations, whose members, for years, gave unstintingly of their time and efforts to make "Chicago Beautiful" a possibility, shall have proven their worth by tasks well-done and rewards well-earned.

Scene in Forest Preserve, Chicago

RESIDENCE OF Mr. and Mrs. WILLARD M CLAPP CLEVELAND HEIGHTS, OHIO

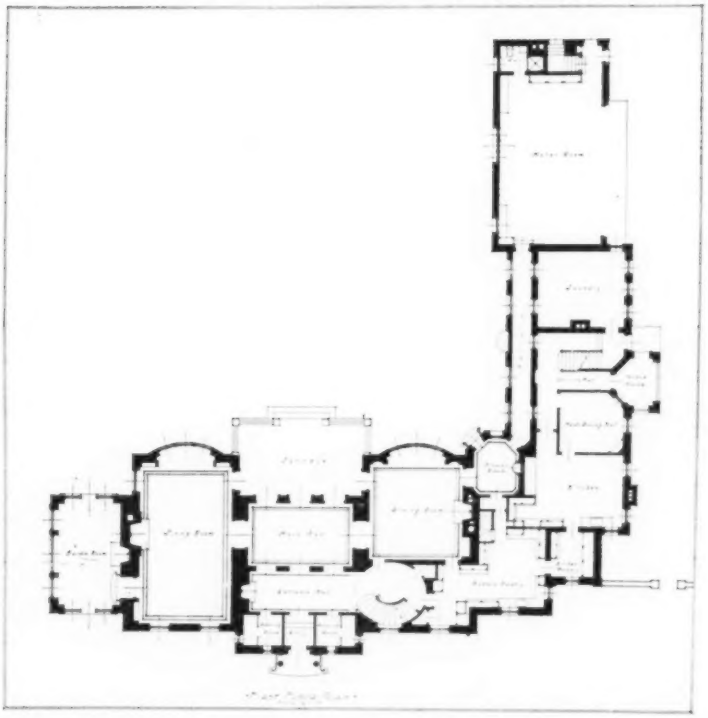
FRANK B MEADE *and* JAMES HAMILTON, *Architects*

By I T Frary

MEMORIES OF OLD stone houses, which modern apartment buildings have long since swept from the suburbs of Boston, suggested the type of house that Mr. and Mrs. Clapp asked their architect to design for them. The success with which the spirit of those old houses has been adapted to the requirements of this problem may be judged from the photographs, so far as architectural design is concerned. The contribution which color makes to the effect of the interior must be taken by the reader on faith.

The planting about the house has united it most successfully with its setting, affording an air of permanency and self-possession that might well be taken to indicate an existence of many years, instead of only two or three. When work began, the site was an open field with streets on three sides, and with scarcely a tree or shrub, save those along the roadways, to relieve its bareness. Today the well considered approach, the formal garden, and the more informal lawn with its rustic pool, all seem perfectly established, affording spacious vistas, privacy without over evident exclusiveness, and all, including the service yard, within the compass of half a city block.

The exterior of the house is severely simple. It is of seam face granite from Quincy, Massachusetts, the lighter and more delicate shades only being used, giving it the softness of a water color sketch. The severity is relieved by a touch of ornament in the pierced window shutters and by the use of wrought iron at windows, doorway and in garden structures. Wrought iron and heavily leaded glazing



RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects

RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects
Mrs. Ellen B. Shipman and Warren Manning, Landscape Architects

are distinctive notes both indoors and out.

The entrance hall is the most formal of the rooms, with marble floor, paneled walls, and doors of glass set in metal. Paralleling it, and connected by three arched doorways, is the main hallway, similiar in design but softened in effect by a carpeted floor and informal furnishings. At one end is the living room, wainscoted to the ceiling with richly figured American walnut; its dominant feature an antique mantel of Convent Sienna marble, exquisitely soft in tone. Beyond is the garden room with a flat vaulted ceiling and wainscoted walls painted in tones of tan. The color scheme of the room is set by old Portuguese material which is used as covering for cushions and upholstery. The floor tiles pick up tones of blue from this fabric, and a hint of delicate coppery pink is reflected in the curtains.

At the opposite end of the hall is the dining room, its paneled walls painted a peculiar tone of old yellow, taken from a Chinese screen which shields the butler's pantry door. The added yellow of draperies, and the rich coloring of the painted panel in the over mantel, contrasted against the neutral green of plain carpeting, and the deep warm tones of walnut furuiture, all accented by the sparkle of crystal lighting fixtures, give to this room an air of rare distinction.

The use of paneled walls, both wood and plaster, in all important rooms, goes far toward producing a satisfying sense of unity, an effect that is enhanced by the plain floor coverings which provide a foil for color and pattern. Only in the living room have figured rugs been used, and there with pattern and coloring so restrained as to preserve and enhance the decorative balance.

The curving stairway, with its delicate wrought ironwork and continuous curving hand rail, is one of the striking features of the house, its construction testing the stair builder's technique to the utmost. (Page 278.)

Service quarters and garage occupy an ell, stretching to the rear, in which an interesting feature is a long, cloister-like corridor which affords communication

Entrance Hall

RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO

Frank B. Meade and James Hamilton, Architects

Flower Room (from Dining Room)
RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects

Dining Room (Above) and Stair Hall at Second Floor
RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects

Living Room (Above) and Master's Bedroom
RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects

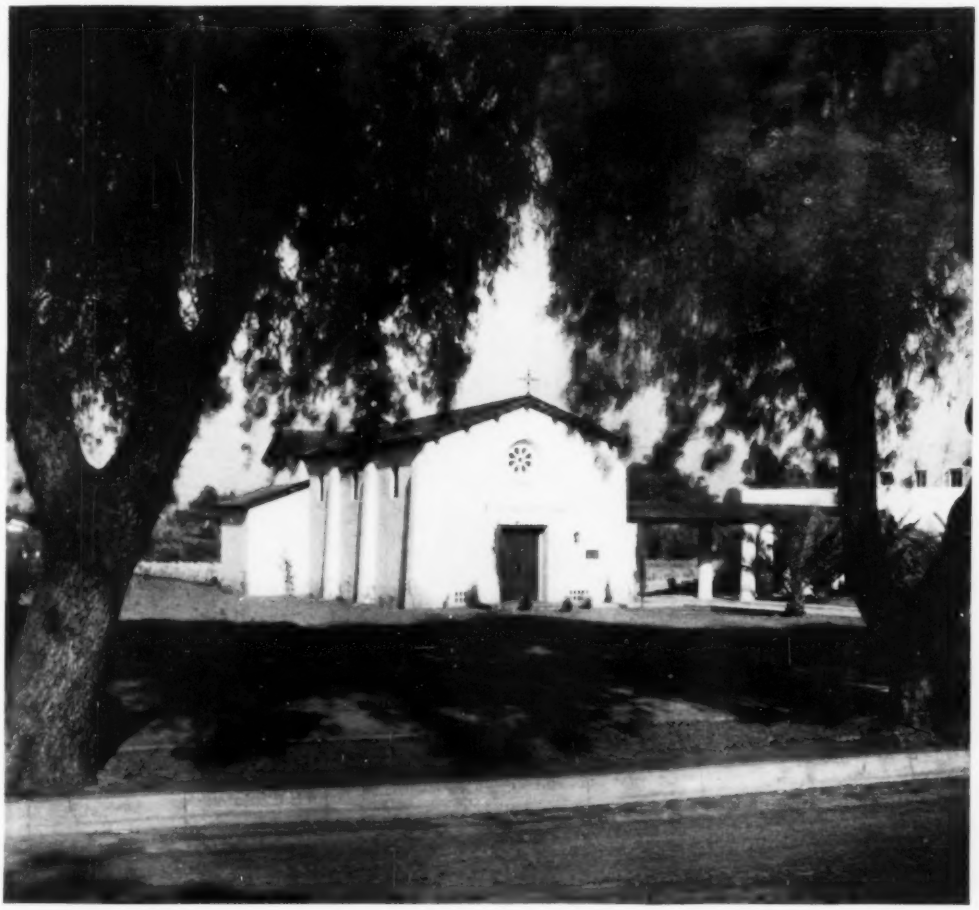
A Corner of the Garden
RESIDENCE OF MR. AND MRS. WILLARD M. CLAPP, CLEVELAND HEIGHTS, OHIO
Frank B. Meade and James Hamilton, Architects
Mrs. Ellen B. Shipman and Warren Manning, Landscape Architects

between house and garage. This corridor is entered through a small flower room, opening from the dining room. On one wall are arched windows protected by wrought iron grills, through which are caught glimpses of garden and lawn; on the opposite, unbroken wall an individual touch is added by figured tiles and old cast iron firebacks let into the plaster and the brick of its lower portion.

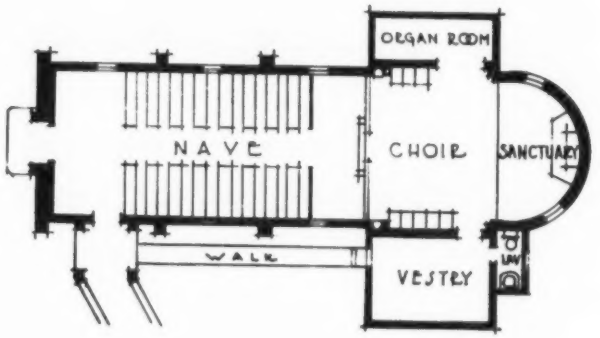
The second floor rooms are few, but commodious. Attractive features here are the airy sun room overlooking the gardens, and the study adjoining the master's suite.

Like many of the larger houses of Cleveland's suburbs, this residence combines the privacy and retirement of a country place with the convenience and accessibility which only a location in the city can afford, and reflects that love of outdoor life, of garden and lawn that has always made of Cleveland a city of detached homes.

A PORTFOLIO OF CVRRENT CHVRCH ARCHITECTVRE



CHAPEL, HOME FOR THE AGED, ALHAMBRA, CALIFORNIA
Reginald D. Johnson, Architect



CHAPEL HOME FOR THE AGED

ALHAMBRA CALIF.

REGINALD D. JOHNSON - ARCHITECT

LOS ANGELES CALIF.

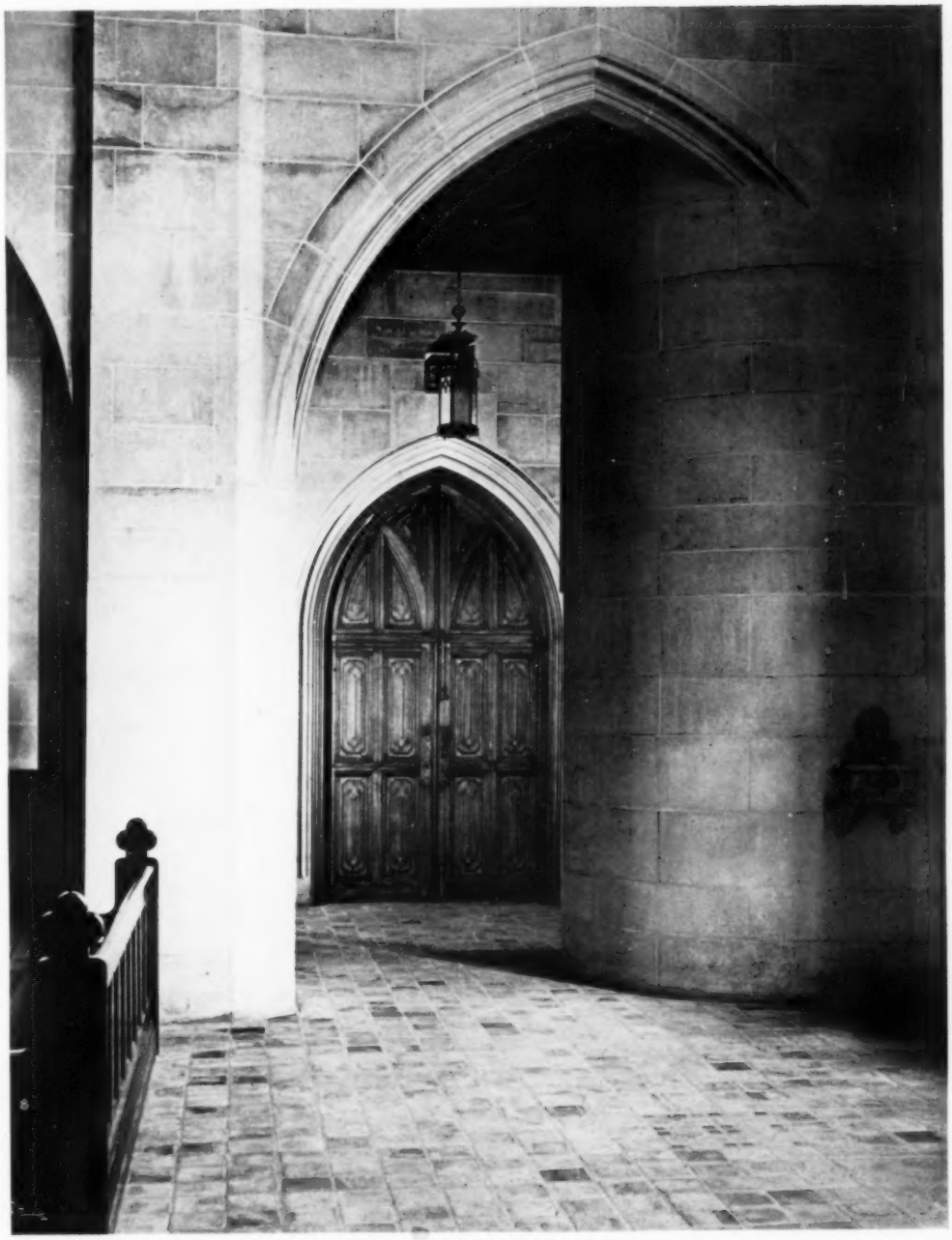
0 2 4 8 12 16

SCALE

JD

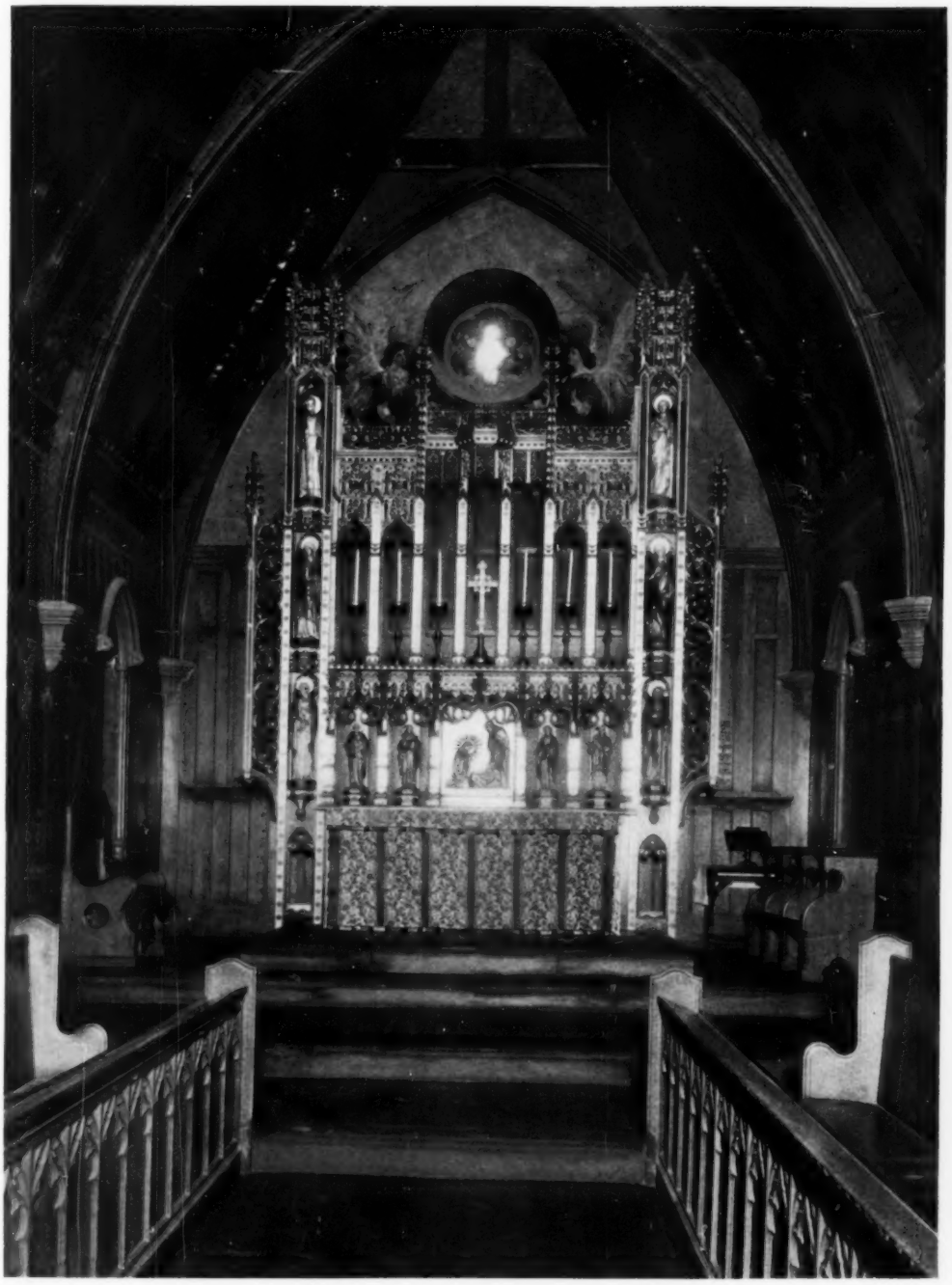
CHAPEL, HOME FOR THE AGED, ALHAMBRA, CALIFORNIA
Reginald D. Johnson, Architect

ST. CHRYSOSTOM'S CHURCH AND CARILLON TOWER, CHICAGO
Chester H. Walcott, Architect
Bennett, Parsons & Frost, Consulting Architects



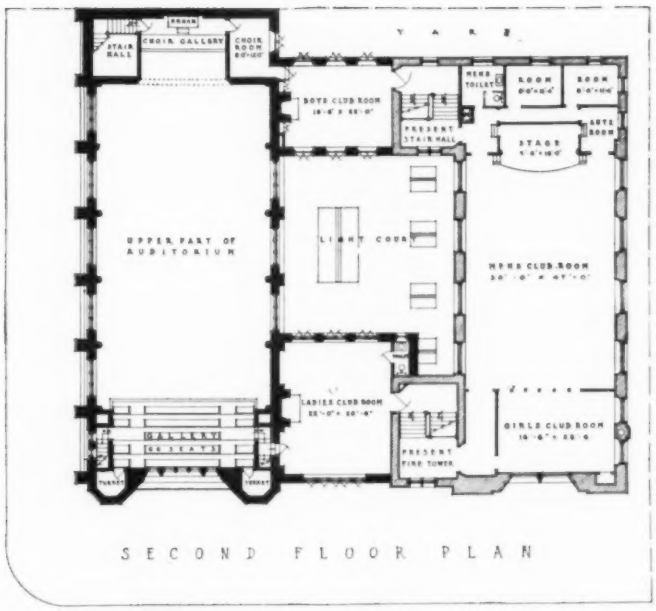
View from the Nave, Looking Towards North Entrance Door
ST. CHRYSOSTOM'S CHURCH, CHICAGO
Chester H. Walcott, Architect
Bennett, Parsons & Frost, Consulting Architects

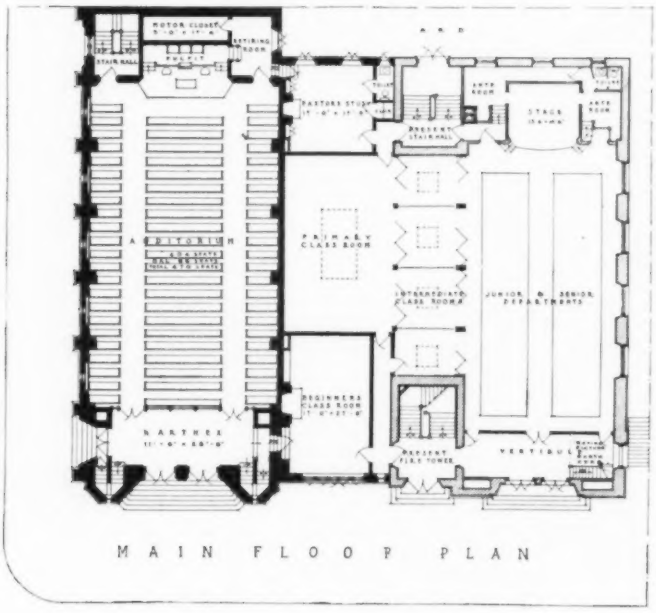
ST. MARY'S RECTORY, CASTLETON, STATEN ISLAND
Wilfrid E. Anthony, Architect



INTERIOR OF ST. MARY'S CHURCH, CASTLETON, STATEN ISLAND
Wilfrid E. Anthony, Architect

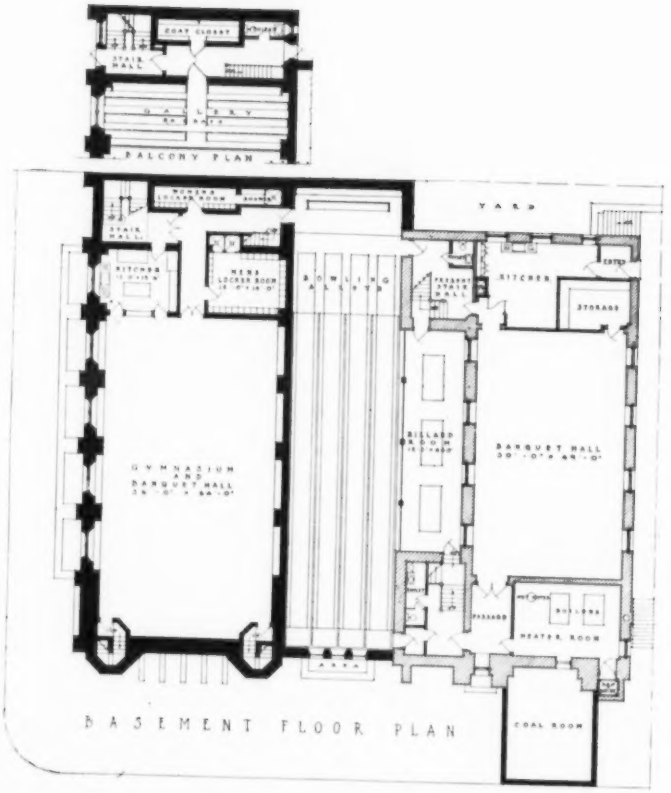
FORT GEORGE PRESBYTERIAN CHURCH
186th Street and St. Nicholas Avenue, New York City
Clarence Brazer, Architect



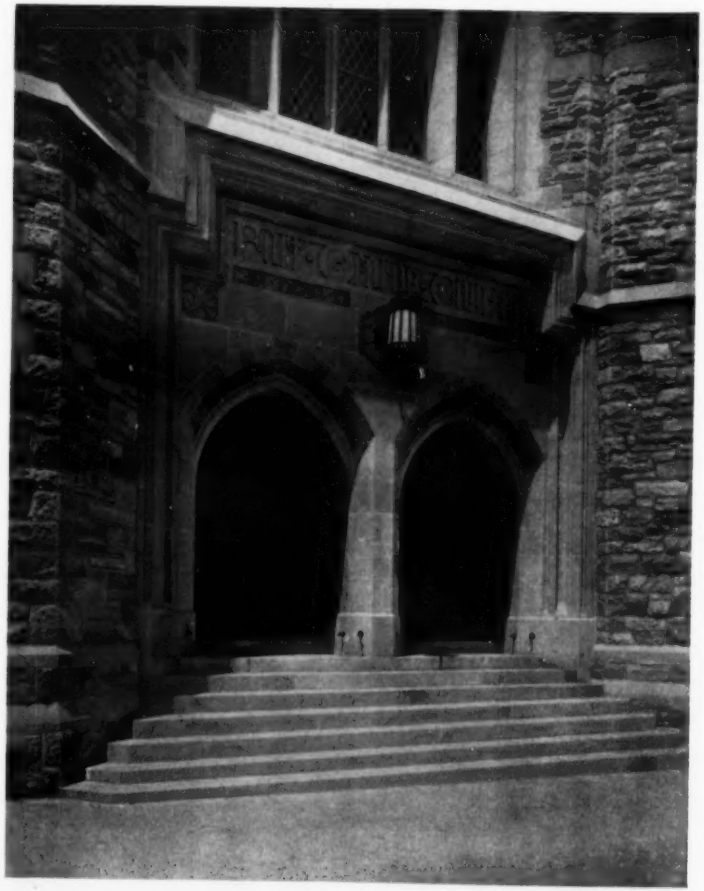


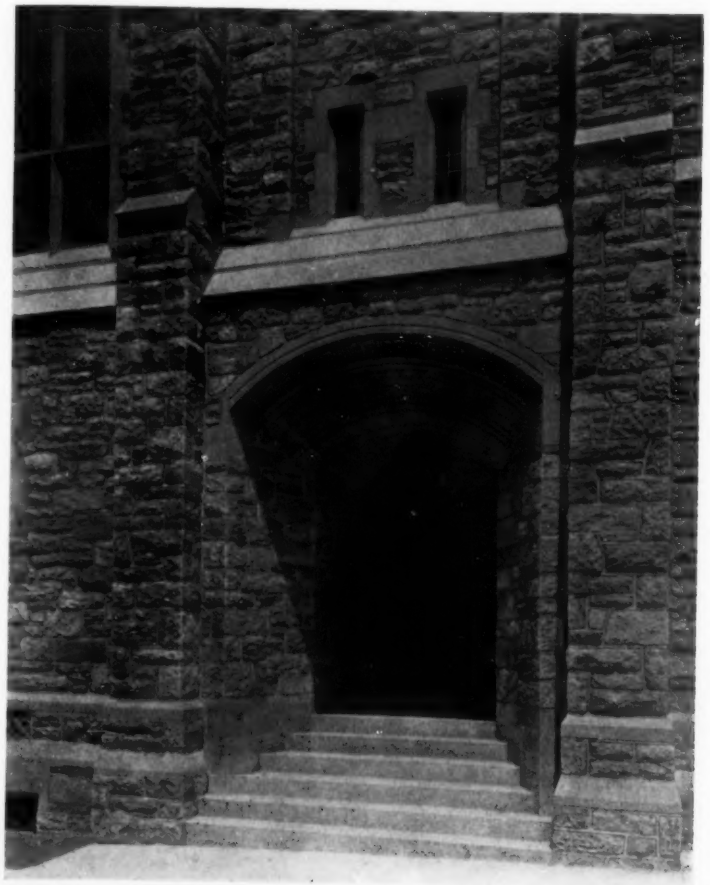
FORT GEORGE PRESBYTERIAN CHURCH
180th Street and St. Nicholas Avenue, New York City
Clarence Brazer, Architect

INTERIOR OF FORT GEORGE PRESBYTERIAN CHURCH
186th Street and St. Nicholas Avenue, New York City
Clarence Brazer, Architect

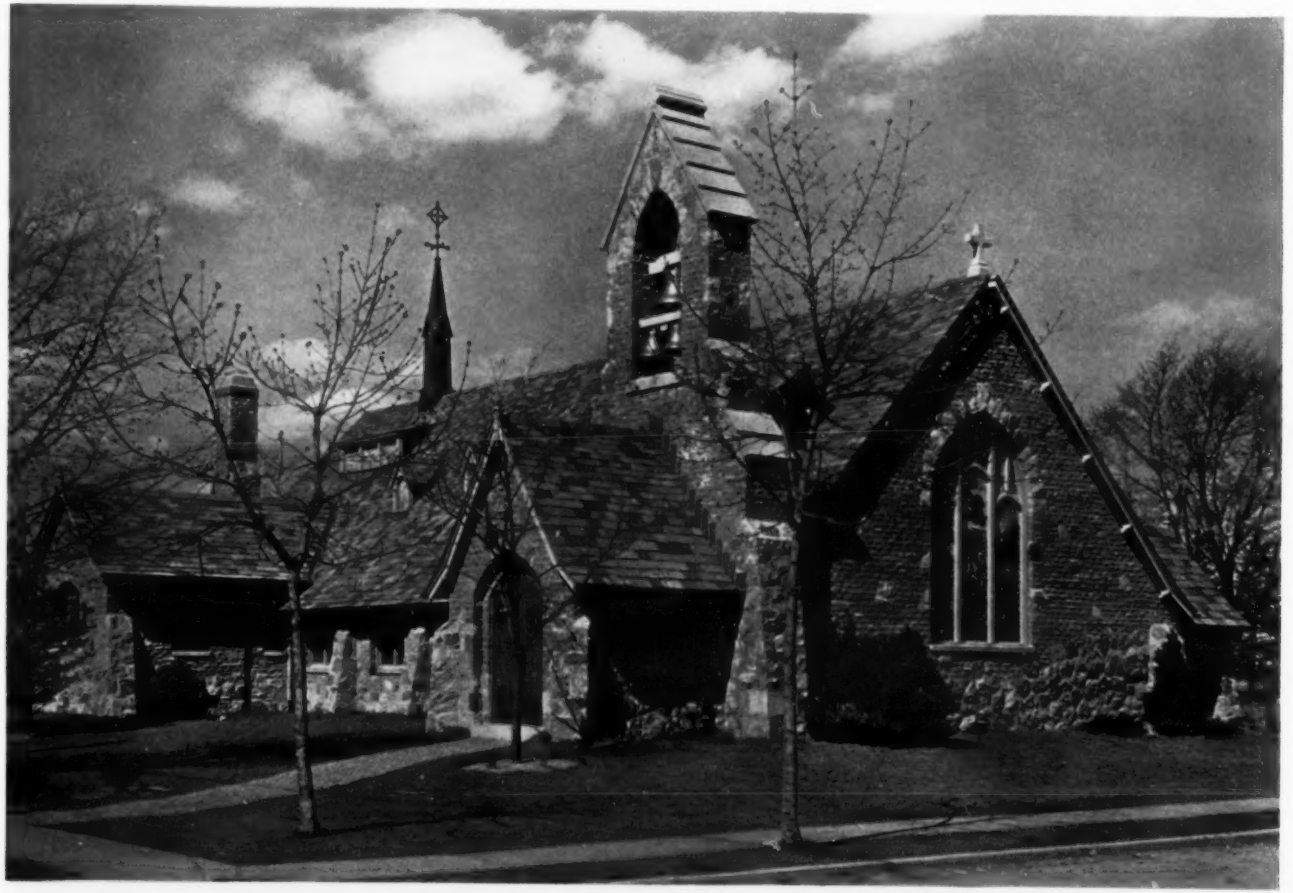


FORT GEORGE PRESBYTERIAN CHURCH
186th Street and St. Nicholas Avenue, New York City
Clarence Brazer, Architect

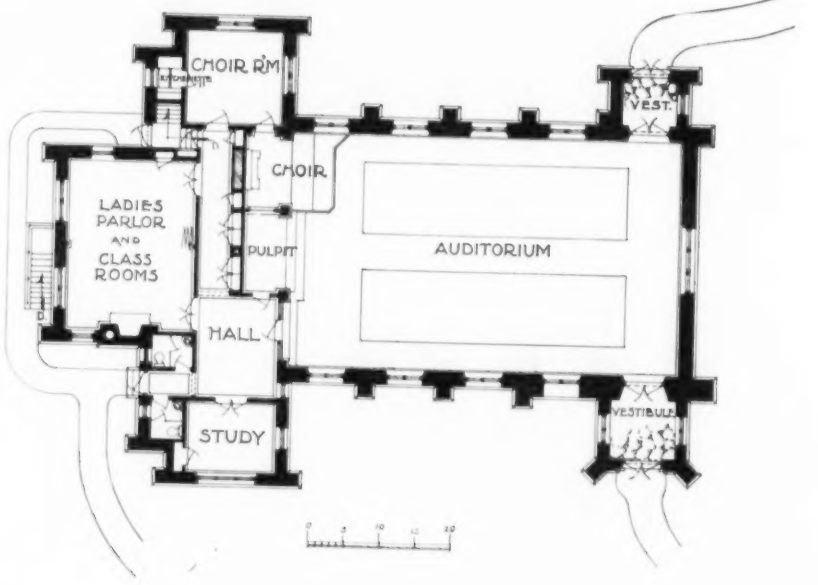




ENTRANCE DETAILS, FORT GEORGE PRESBYTERIAN CHURCH
186th Street and St. Nicholas Avenue, New York City
Clarence Brazer, Architect



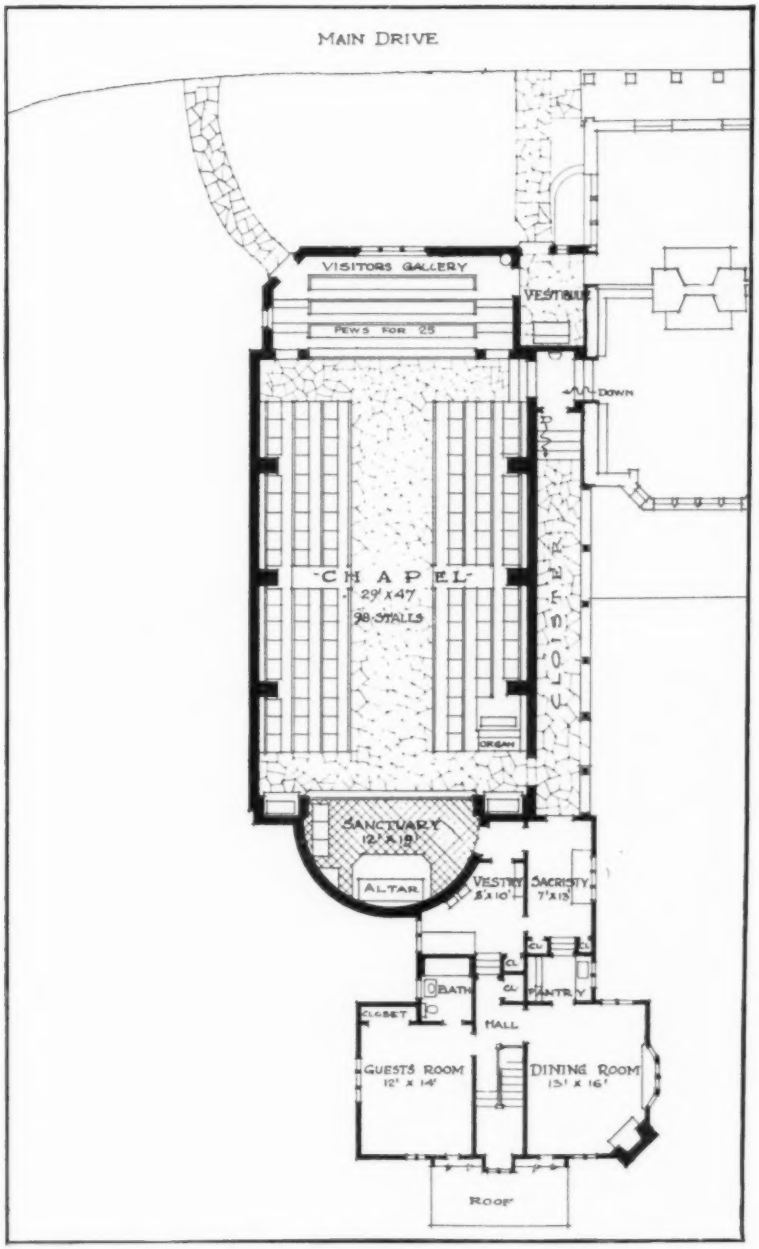
COMMUNITY CHURCH, EAST WILLISTON, L. I.
George W. Conable, Architect



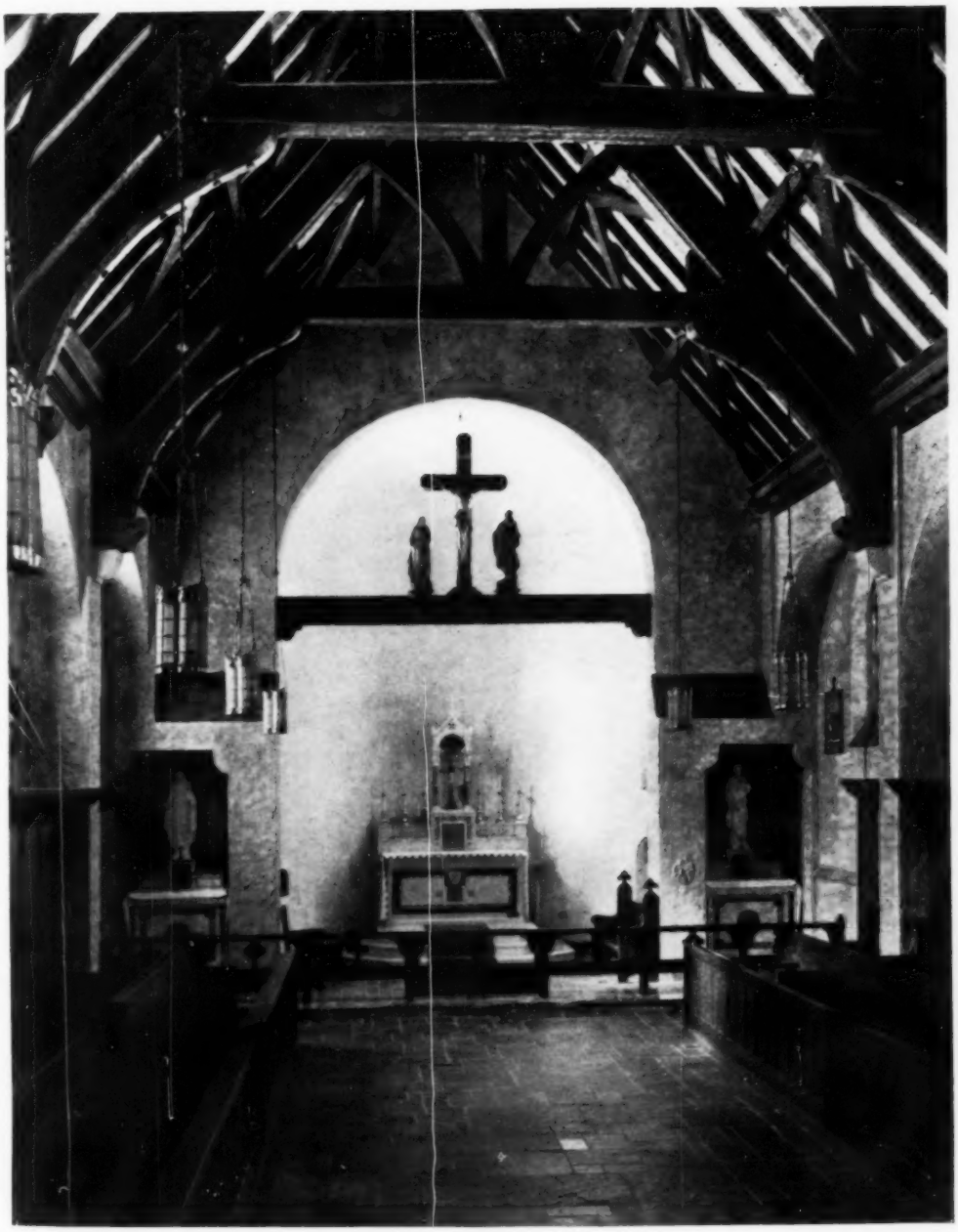
COMMUNITY CHURCH - EAST WILLISTON L.I.

Geo W Constable Archt

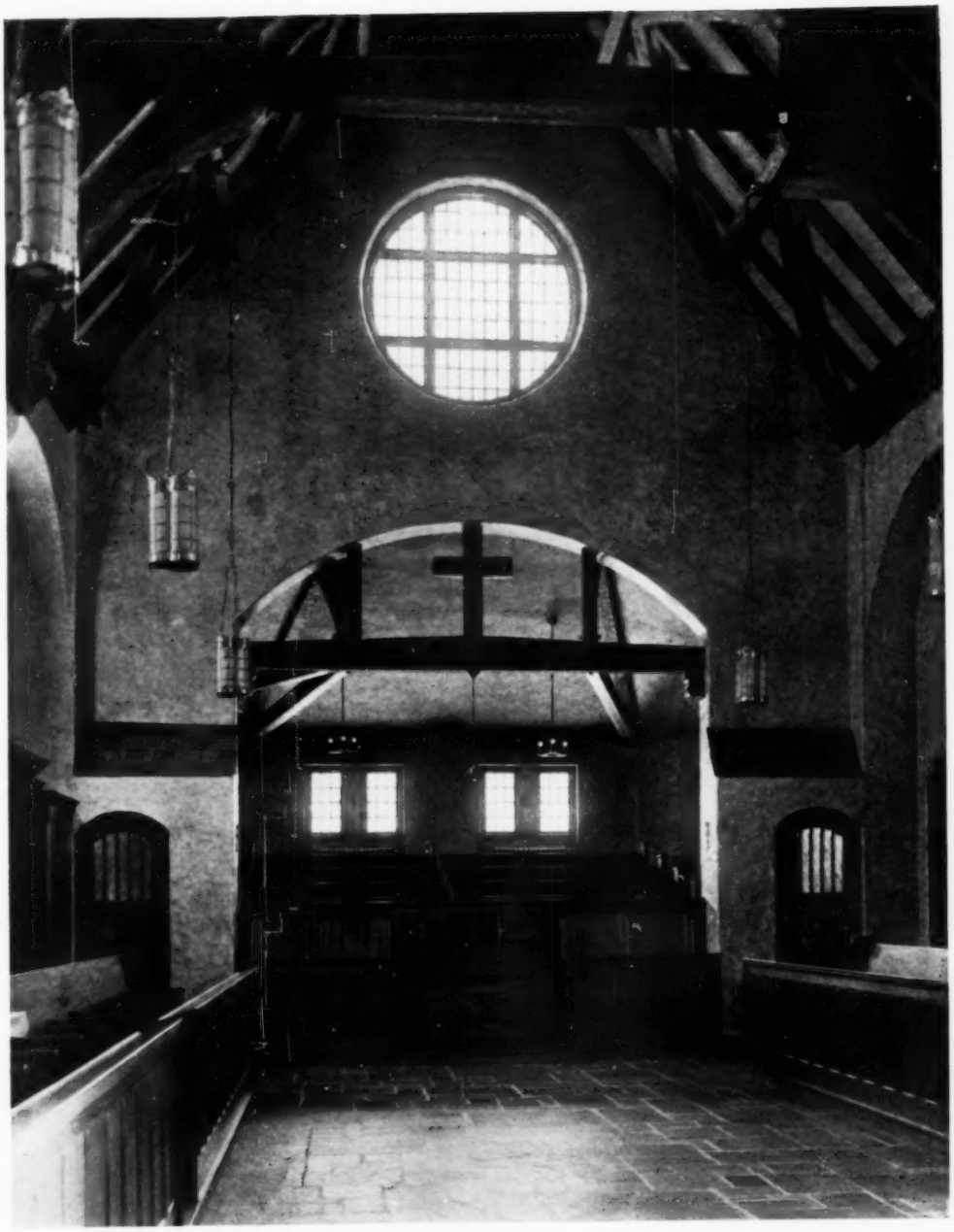
THE SACRED HEART CHAPEL, BEACON, N. Y.
Henry J. McGill and Talbot F. Hamlin, Architects



FLOOR PLAN OF THE SACRED HEART CHAPEL, BEACON, N. Y.
Henry J. McGill and Talbot F. Hamlin, Architects



INTERIOR, SACRED HEART CHAPEL, BEACON, N. Y.
Henry J. McGill and Talbot F. Hamlin, Architects



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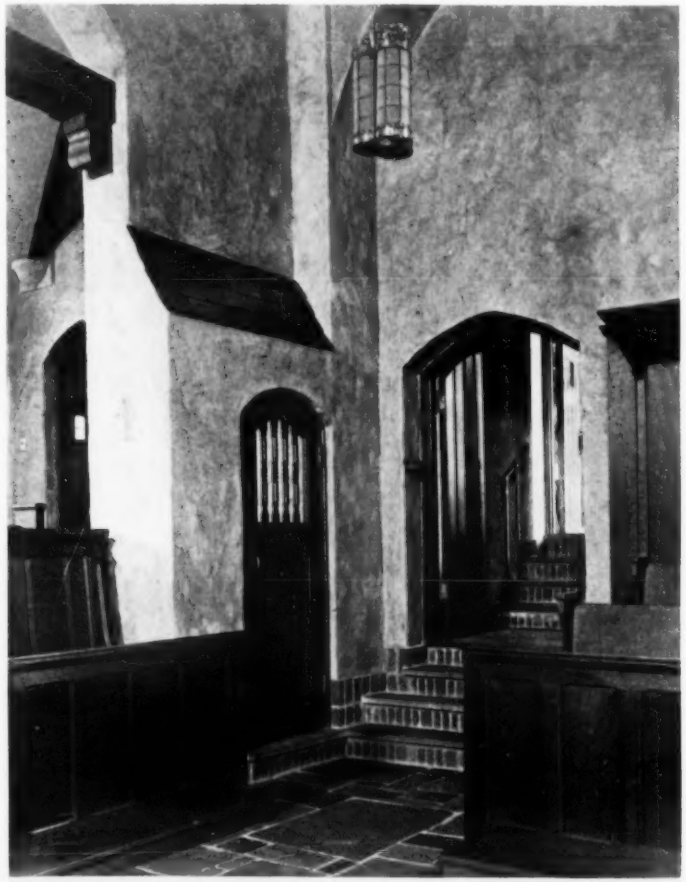
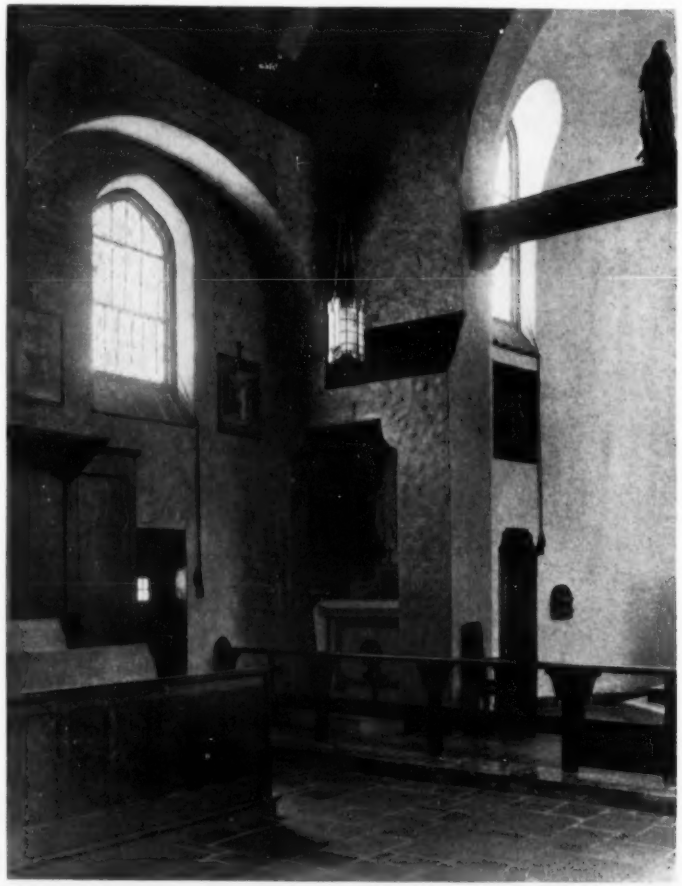
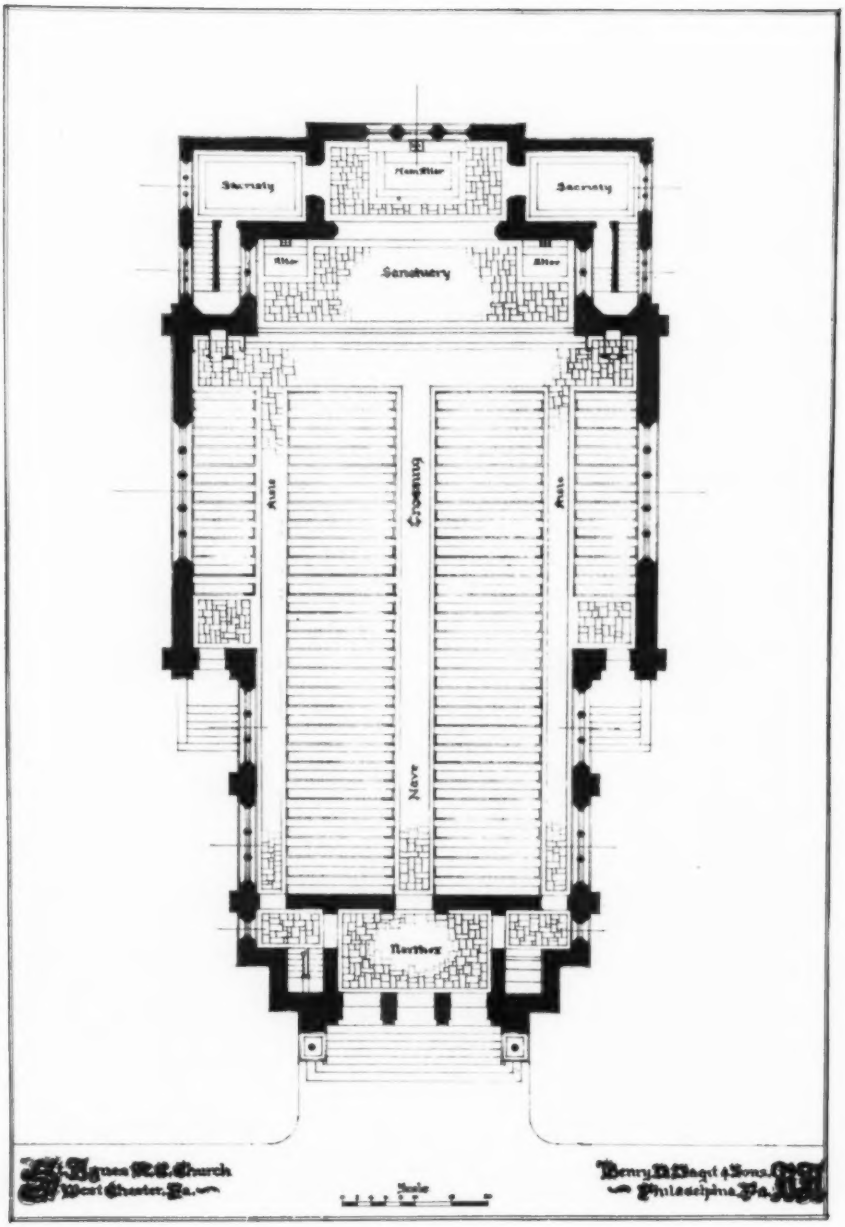
Henry J. McGill and Talbot F. Hamlin, Architects



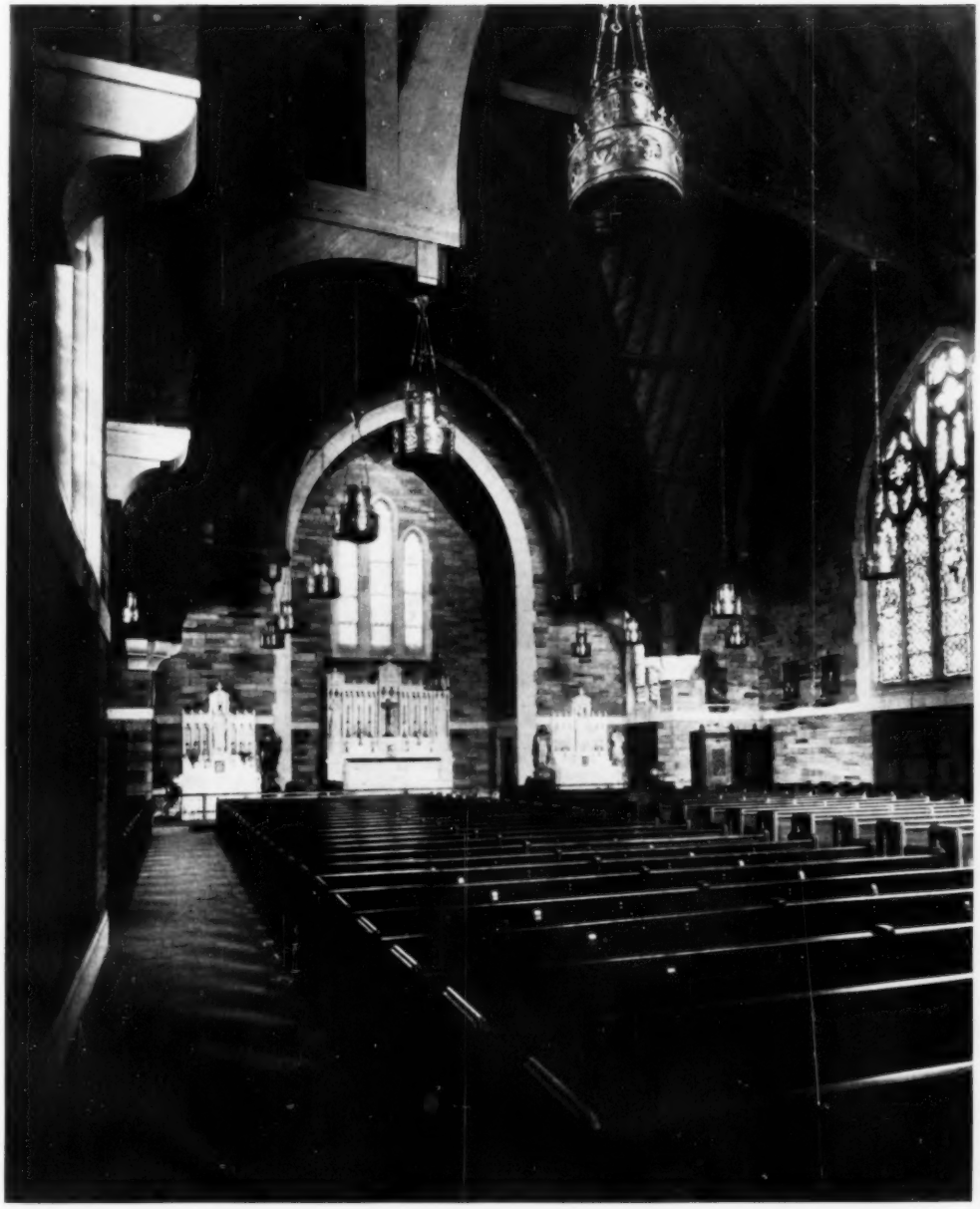


DETAILS, INTERIOR OF THE SACRED HEART CHAPEL, BEACON, N. Y.
Henry J. McGill and Talbot F. Hamlin, Architects

ST. AGNES ROMAN CATHOLIC CHURCH, WEST CHESTER, PENNSYLVANIA
Henry Dagit & Sons, Architects



ST. AGNES ROMAN CATHOLIC CHURCH, WEST CHESTER, PENNSYLVANIA
Henry Dagit & Sons, Architects



ST. AGNES ROMAN CATHOLIC CHURCH, WEST CHESTER, PENNSYLVANIA
Henry Dagit & Sons, Architects

NICHOLAS ROERICH

By

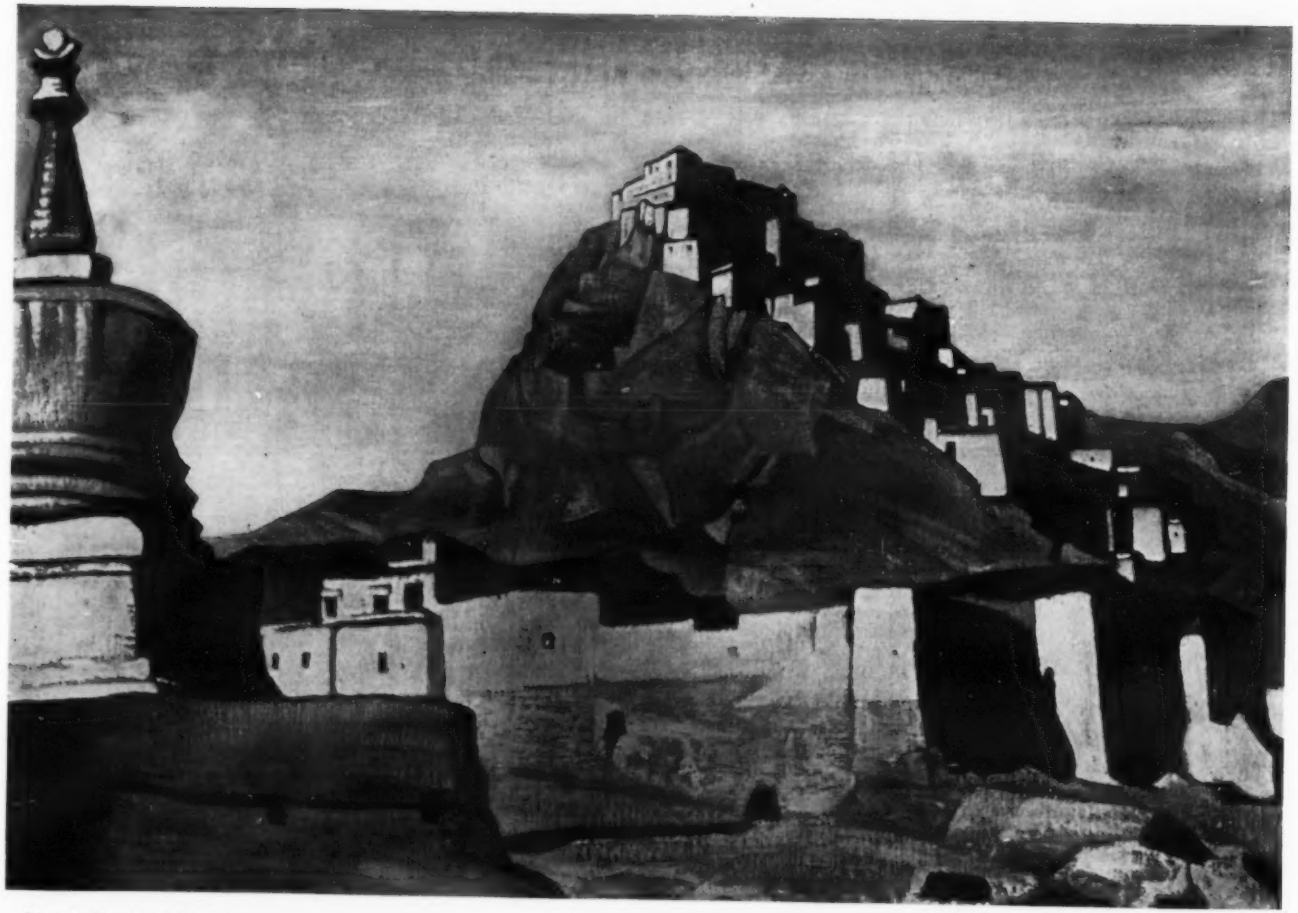
Claude Bragdon

IN THE HISTORY of the fine arts, certain individuals have appeared from time to time whose work has a unique, profound and indeed a mystical quality which differentiates them from their contemporaries, making it impossible to classify them in any known category or to ally them with any school, because they resemble themselves only—and one another, like some spaceless and timeless order of initiates. Such were Leonardo, Rembrandt, Dürer, Blake, and, in other fields, Beethoven and Balzac; such also, in our own times and in a lesser way, were Rodin, Ryder and Burne Jones, for their work shows flashes of that dæmonic and eerie beauty which is the sign whereby they may be identified as belonging to that mythical mystic brotherhood.

Nicholas Roerich, in his life, in his character and in his art reveals himself as a member of this fraternity. For thirty-five years—since the time of his first exhibition in Russia—he has been going up and down the world—Europe, America, Asia—absorbing the auras of diverse peoples, making pilgrimages to remote places, and always and everywhere scattering wisdom, planting seeds of beauty, some of which have sprung up, flowered, and scattered seeds of their own.

In Russia, as secretary of the Society for the Encouragement of Arts, and later as director of the school of that society, he was an important agent in organizing and coördinating that native, new and powerful impulse which in painting, in music, in the drama and in the dance later spread throughout the civilized world: for it is not too much to say that everything which now goes by the name of modernism had Russia for its cradle. It is signficant in this connection that Stanislavsky enlisted Roerich's aid in the Moscow Art Theatre, that Stravinsky dedicated to him the *Sacre du Printemps*, for which Roerich designed the original *mise-en-scène*, and that Andriev, Gorky, Mestrovic, Zuloaga, Tagore and others throughout the world who represent *the newness*, have paid him the tribute of their homage and their praise.

Coming to America with an exhibition of his paintings, at the invitation of the Chicago Art Institute, Roerich immediately took steps to resume and repeat the work he had inaugurated in Russia, that of uniting the arts, and thus uniting men through beauty, for he believed, as many others are coming to believe, that beauty is the universal and true solvent whereby racial and national animosities



FROM "CITADELS AND SANCTUARIES" SERIES.—Nicholas Roerich

AND WE ARE OPENING THE GATES.—Nicholas Roerich

may be dissolved. To this end he founded, with the help of friends, a school in which all of the fine arts were to be taught, under the title of Master Institute of United Arts, and a year later he established Corona Mundi, an International Art Center. The school passed through those vicissitudes which usually beset enterprises of this character in a civilization such as ours, the best image of which would be a rush-light in a wind-swept darkness—but it survived, and has to-day a permanent home on Riverside Drive, New York. Other vast outlines, sketched by Roerich at this time, have not been filled in: they include Cor Ardens, an affiliation of the creators of beauty everywhere throughout the world, and Alatas, an international, non-commercial publishing association for the interchange and dissemination of new and constructive ideas through the mediumship of the "art preservative."

I mention these enterprises, realized, partially realized and unrealized, to show the vast sweep of Roerich's vision, to indicate his function as a prophet and a pioneer, clearly foreseeing and quietly planning a better order in a world still in the grip of its so recent terrible nightmare, not yet risen from a bed drenched with blood and stained by tears.

Should his prophecies come true, and should his dreams of binding humanity into a brotherhood through beauty materialize, it is for this that he will doubtless be most honored and longest remembered, but to us, his contemporaries, he is naturally best known as a painter of hauntingly beautiful pictures. These are of all kinds and on a vast variety of subjects, but in general they represent nature strained through a mystical consciousness—the light that is on sea and land translated, by some potent magic, into the light that never was on sea or land. Roerich satisfies the idealist without affronting the realist. Mukerji, the Hindu novelist and poet, remarked to a friend that if he wanted to know how the Himalayas impressed a beholder, he should see Roerich's paintings of them, because along with a true rendering of their form and color, something of their spirit was communicated too.

It is characteristic of the man that he should have journeyed to that roof of the world, Thibet, the sacred imperishable land. After a brief sojourn in America, in obedience to some inner monition of the spirit, he forsook the ordered and easy life of cities, and unappalled by the rigors, dangers and difficulties of such a quest, he set out for the Himalayan plateau, "trailing clouds of glory" as he went, so to speak, in the shape of paintings of the Grand Canyon, the Santa Fe country, the Pacific, India and the Far East. The culmination of his life work, up to the present, is in those groups of paintings named by him the Thibetan Path, Himalaya, and Banners of the East. These are freighted with mystical meanings which, even though unintelligible to all save the initiated, yet act upon the unenlightened consciousness as does perfume upon the senses, or as music upon the emotions. It is not that Roerich attempts to be deliberately cryptic—on the contrary, a great deal of his symbolism is almost naive in its simplicity—but the average mind so resents the very idea of esotericism, that it closes itself to a certain extent.

Roerich's symbolism, as I say, requires no glossary, possessing the characteristics of directness and universality. An example of his general method is seen in that painting of what he names the Messiah series, entitled, "The Miracle." It represents a titanic valley, not unlike the Grand Canyon, a world primeval, stark, rock-strewn, without visible flora or fauna. Prominent in the foreground is a natural bridge, and over this bridge passes a road. On the near side of the bridge are a few human figures, prostrate before the miracle of a great radiance coming from behind the bridge, the aura of some supernatural presence whose figure is not yet visible. Here is a simple, natural symbology subject perhaps to different interpretations, but none of them contradictory. Considered objectively, the picture is simply a dramatization of that expectancy of a messiah which is so general nowadays, and it holds forth the healing promise, that though his presence is not seen, his aura brightens the darkness, his influence is

AND WE ARE FISHING—Nicholas Roerich

already felt. Considered from the standpoint of subjectivity, the denuded valley might symbolize the condition of the soul after trials and purgations; the road, the "small old path" to freedom and perfection; the bridge, that stage on that path where the transit is effected between the lower and the higher consciousness; the prostrate figures, those "qualities" which must be redeemed and "carried over," awe-struck at the miracle of the felt approach of the "golden person" bringing release from bondage through the shining of the inward light.

But the great merit of this picture, freighted as it is with meaning (and that of others of its class), lies in its beauty of color and composition. The mystic and metaphysician in Roerich never submerge the artist, with the result that when he permits himself the use of symbols he is still lyrical and not literary: his pictures are not sermons, but songs. "The Miracle," despite the fact that it conveys a message, is not a morality so much as a delight to the visual sense, abounding in spatial rhythms and color harmonies as fine and subtle as those of some priceless old yellow Chinese rug. The "story" is there, but the final indelible impression is one of beauty, and this is as it should be, for in the hierarchy of trades and talents the creative artist is nearest to the throne of God.

Of Roerich's archaeological pictures I shall not speak, nor of his pioneer work in the theatre, important as that has been, because I feel that these things, which at one time absorbed his mind and dominated his consciousness have since become far less important to him than what I shall call his *mystical quest*. One has the feeling that in everything he does he is seeking the hidden truth, the unrevealed beauty, the Lost Word, in point of fact. Like some mighty indefatigable hunter, armed not with a gun, but with his brushes and paints, he stalks his quarry across oceans, rivers, mountains, though knowing all the while that the thing he is seeking is in himself. He permits us to participate in this adventure, and thus draw nearer to that truth which is beauty, and that beauty which is truth.

In the CAUSE OF ARCHITECTURE

By

Frank Lloyd Wright

IV. Fabrication and Imagination

Time was when the hand wrought. Time is here when the *process* fabricates instead.

Why make the fabrication a lie or allow it to become one when we try to make it "beautiful"? Any such lie is an abuse of Imagination.

All Man has above the brute, worth having, is his because of Imagination. Imagination made the Gods—all of them he knows—it is the Divine in him and differentiates him from a mere reasoning animal into a God himself. A creative being is a God. There will never be too many Gods.

Reason and Will have been exalted by Philosophy and Science. Let us now do homage to Imagination.

We have suspected it and punished it and feared it long enough.

Imagination is so intimately related to sentient perception—we can not separate the two. Nor need do so.

Let us call Creative-Imagination the Man-light in Mankind to distinguish it from intellectual brilliance. It is strongest in the creative-artist. A sentient quality. To a degree all developed individuals have this quality, and to the extent that it takes concrete form in the human fabrications necessary or desirable to human life, it makes the fabrication live as a reflection of that Life any true Man loves as such—Spirit materialized.

The Machine is an obedient, tireless fabricator of a non-sentient product. A shaper and drawer of steel, a weaver of fabrics—"casting" forms continually in every material solvent by fire or water.

So the study of the process is as important as the study of the Machine. It is another phase of the Machine and in the method of the process too lies the opportunity for the artist. Unless he understands it what can he do with it—to qualify its product—from within? To modify it externally is not enough. He has been on the surface, as intimately related to its nature as a decalcomania on a tin box-cover is to the Nature of the thing going on inside. He has been a decorative label when he has been at all.

Let us, then, get inside.

We will find all the magic of ancient times magnified—Aladdin with his wonderful lamp had a poor thing relatively in that cave of his. Aladdin's lamp was a symbol merely for Imagination. Let us take this lamp inside, in the Architect's world.

Where begin? With mechanistic processes like weaving? printing? stamping? Or with casting? Or with plastic, chemicalized materials like concrete, plastering, steel making, glass making, paper making, ceramics?

One must serve for all. Then let us take one that is both a chemical-process and casting—concrete.

Concrete is a plastic material but sets so slowly as yet that moulds or so called "forms" are used to give it *shape*. It must be held, until it hardens sufficiently, to hold the shape desired.

Ordinarily in itself it has no texture unless the mould leaves it on the surface. It is, however, possible to use fine colored-gravel or crushed-marble or granite in the mixture so the superficial-cement (retarded in setting by some substance like soap applied to the interior surfaces of the "forms") may be easily washed away, leaving the hard gleaming aggregate exposed in almost any color or texture.

All composite materials like concrete

have possibilities of bringing out the nature of the mixture in some kind of surface treatment, and the materials may be variously composed in the substances mixed to secure these effects of texture and color desired in the finished product.

But, mainly, concrete is still a mass material taking form from moulds, erroneously called "forms."

The materials of which the moulds themselves are made, will, therefore, modify the shape the concrete naturally takes, if indeed it does not wholly determine it.

Unity Temple at Oak Park was entirely cast in wooden boxes, ornamentation and all. The ornament was formed in the mass by taking blocks of wood of various shapes and sizes, combining them with strips of wood, and, where wanted, tacking them in position to the inside faces of the boxes.

The ornament partakes therefore of the nature of the whole, belongs to it. So the block and box is characteristic of the forms of this temple. The simple cubical masses are in themselves great concrete blocks.

The design makes a feature of this limitation as to form as they are grouped to express the great room within.

Here is a building, a monolith in mono-material, textured as described above, left complete as it came from the moulds—permanent architecture.

The whole is a great casting articulated in sections according to the masses of concrete that could safely be made to withstand changes of temperature in a severe climate.

It is a good record of this primitive period in the development of concrete building when it was necessary to pour the material into boxes to "set it" into shape.

It is a "natural" building therefore, in a transition-period of the development of the use of concrete.

I say a period of transition because concrete is essentially a plastic material, sometime to be used as such; used as a plastic material by plastering upon cores or upon steel fabrications. The resultant form may then take the shapes characteristic of drifted snow or sand or the smooth conformation of animals perhaps —as they become finished buildings.

But at the present time there comes a less cumbersome and a cheaper because less wasteful method than the moulds on a large scale that built Unity Temple. It was necessary then to build a rough building complete in wood as a "mould" into which the temple could be cast.

Now, in this easier more plastic method, standardization enters as the *unit-system*.

A unit-mass of concrete, size and shape determined by the work intended to be done and what weight a man can reasonably be expected to lift and set in a wall, is fixed upon. This in order to avoid the expensive larger moulds—say, the slab block we make 16-in. by 16-in. x 2½-in. thick.

Mechanical steel or aluminum moulds are made in which to precast the whole building in a small "unit" of that size. Grooves are provided in the edges of the slab-blocks so a lacing of continuous steel rods may be laid in the vertical and horizontal joints of the block slabs for tensile strength. The grooves are large as possible so they may be poured full of concrete after each course of blocks is set up, girding and locking the whole into one firm slab. Here ultimately we will have another monolith *fabricated* instead of *poured* into special wooden moulds. The moulds in this case are metal, good for many buildings, and take the impress of any detail in any scheme of pattern or texture imagination conceives. The whole building "precast" in a mould a man can lift.

Here the making of the structural-unit and the process of fabrication become complete synchronized standardizations. A building for the first time in the world may be lightly fabricated, complete, of mono-material—literally woven into a pattern or design as was the oriental rug earlier referred to in "Standardization": fabrication as infinite in color, texture and variety as in that rug. A certain simple technique larger in organization but no more complex in execution than that of the rug-weaving, *builds* the building. The diagrams and unit moulds are

less *simple*. They have much study put on them, and organization becomes more than ever important.

When Machine-Standardizing enters, all must be accurate, precise, organized.

The Machine product can stand no slovenly administration for it can make good no mistakes.

The limitations of both process and material are here very severe, but when these are understood and accepted we may "weave" an architecture at will—unlimited in quality and quantity except by the limitation of imagination.

Several mechanical moulds may be thrown into a Ford and taken where gravel and sand abound. Cement is all else needed, except a few tons of ¼ in. commercial steel bars, to complete a beautiful building. This—and an organization of workmen trained to do one thing well.

The ground is soon covered with slab-blocks, the block-stuff curing in moisture. After that, it is all a matter of reading the architect's diagrams, which is what his plans now become. They are not tediously figured with haphazard dimensions any longer. They are laid out by counting blocks, corner blocks and half-blocks; so many blocks wide, so many high, and showing where specific blocks go is like counting stitches in the "woof" and threads in the "warp." Building is a matter of taking slab-block stitches on a steel warp.

So, a livable building may be made of mono-material in one operation!

There is an outer shell and an inner shell separated by a complete air space.

The inner walls, floors and ceilings which this inner shell becomes are the same as the outside walls, and, fabricated in the same way at the same time.

Windows? made in the shop, standardized to work with the block slab units. Made of sheet-metal finished complete and set in the walls as the work proceeds.

Piping? Cut to the standard unit-length in the shop and set into the hollow spaces. Plastering? None. Carpenter work? None. Masonry? None. "Form" work? None. Painting? None. Decorations? All integral, cast into the structure as designed with all the play of imagery known to Persian or Moor.

The process of elimination which *standardization* becomes has left only essentials. Here is a process that makes of the mechanics of concrete building a mono-material and mono-method affair instead of the usual complex quarreling aggregation of processes and materials: *builds* a building permanent and safe, dry and cool in summer, dry and warm in winter. Standardization here effects economy of effort and material to the extreme, but brings with it a perfect freedom for the imagination of the designer who now has infinite variety as a possibility in ultimate effects after mastering a simple technique.

I give here only one instance of many possibilities in this one material.

What precisely has happened?

Well, one consistent economical imperishable whole instead of the usual confusion of complexities to be reduced to a heap of trash by time.

A quiet orderly simplicity and all the benefits to human beings that come with it.

A simple, cheap material everywhere available, the common stuff of the community—here made rare and exquisite by the Imagination.

Imagination conceives the "fabric" of the whole. The "unit" is absorbed as agreeable texture in the pattern of the whole. Here, too, is certainty of results as well as minimum of costs assured to the human being by free use of the Machine, in perfect control. The whole now in human scale and thoroughly humane. Here is true technique. The technique of a principle *at work*; at work in every minor operation with this material—concrete. Here the material is affected by a process suited to the result desired to such an extent that Architecture may live in our life again in our Machine-age as a free agent of Imagination.

Copper, glass—all materials are subject to similar treatment on similar terms according to their entirely different natures.

The forms and processes will change

as the material changes—but the principle will not. In the case of each different material treated the expression of the whole would become something quite different with new beauty. So comes a true variety in unity in this, the Machine Age.

Coition at last. The third dimension triumphant.

The sickening monotony achieved by a two-dimensional world in its attempts to be "different" mercifully ended, perhaps forever.

True variety now becomes a *natural consequence;* a *natural* thing. We can live again and more abundantly than ever before. Differently, yet the same.

Such harmony as we knew in the Gothic of "Le Moyen Age" is again ours —but infinitely expanded and related to the individual Imagination, intimately, and therefore to the human being as a unit of scale.

Is Machine-Standardization a hindrance? No, a release.

Boundless possibility, and with that comes increase of responsibility. Here, in the hand of the creative-artist, in *fabrication* in this sense, lies the whole expression, character and style, the *quality*, let us say, in any spiritual sense, of modern life.

The integrity of it all as an *expression* is now a matter of the creative-artist's Imagination *at work*.

Where is he? And if *he* is, may he be trusted with such power? Yes, if he has the Gift. If he is "God" in the sense that "man-light" lives in him in his work.

But should he fall short of that, if he is faithful, looking to principle for guidance, he is sufficiently disciplined by the honest technique of fabrication to be sure to produce steady quiet work.

Inspiration cannot be expected in any total fabric of civilization. It may only be expected to inspire the whole and lay bare the *sense of the thing* for others.

The whole is safe when discovered principle is allowed to work! Going *with* Nature in the use of Imagination may seem little different from going against Nature—but how different the destination and the reward!

It has been said that "Art is Art precisely in that it is not Nature," but in "obiter-dicta" of that kind the Nature referred to is nature in its limited sense of material appearances as they lie about us and lie to us.

Nature as I have used the word must be apprehended as the life-principle constructing and making appearances what they are, for what they are and in what they are. Nature inheres in all as *reality*. Appearances take form and character in infinite variety to our vision because of the natural inner working of this Nature-principle.

The slightest change in a minor feature of that "Nature" will work astounding changes of expression.

When the word Nature is understood and accepted in this sense, there is no longer any question of originality. It is natural to be "original" for we are at the fountain-head of all forms whatsoever.

The man who has divined the character of the ingrown sense-of-the-pine, say, can make other pine trees true to the species as any that may continually recur in the woods; make pine-tree forms just as true to the species as we see it and as we accept it as any growing out of doors rooted in the ground.

But, principles are not formulas. Formulas may be deduced from Principles, of course. But we must never forget that even in the things of the moment principles live and formulas are dead. A yardstick is a formula—Mathematics the principle. So, beware of formulas, they are dangerous. They become inhibitions of principle rather than expressions of them in non-sentient hands.

This principle understood and put to work, what would happen to our world? What would our world be like if the Nature-principle were allowed to work in the hands of Creative imagination and the *formulae* kept where it belongs?

Note.—The chemicalization of concrete or cement is too well-known to need any attention here.

V. The New World

The new world? A dangerous title.

But for a sense of humour in this old one there would be no new one. Length and breadth—with just enough thickness to hold them together for commercial purposes we have had in the old world, and all *that* implies in Art and Philosophy.

The new world begins to be when the little "thickness" we have had in the old one becomes *depth* and our sense of depth becomes that sense of the thing, or the quality in it that makes it *integral*—gives it integrity as such. With this "quality" the new world develops naturally in three dimensions out of the one which had but two.

The abstractions and aesthetic lies of a canned pictorial-culture crumble and fade away, worn out and useless.

"Institutions" founded upon those abstractions to serve that culture, crumble. And Architecture now belonging to, and refreshing as the forests or prairies or hills, the human spirit is free to blossom in structure as organic as that of plants and trees. Buildings, too, are children of Earth and Sun.

Naturally we have no more Gothic Cathedrals for the busy gainful-occupations. No more Roman or Greek Sarcophagi for the sacred Banking-business. No more French châteaux for Fire-Engine houses. No more Louis XIV, or Louis XV, or Louis XVI, or any Louis at all, for anything at all!

The Classics? A fond professorial dream.

The Periods? Inferior desecration.

Picture-Post-Card Homes? Museum relics affording much amusement.

The Skyscraper—vertical groove of the landlord? Laid down flat wise. A trap that was sprung.

Churches? We fail to recognize them.

Public Buildings? No longer monuments.

Monuments? Abolished as profane.

Industrial Buildings? Still recognizable—for they were allowed to be themselves in the old world.

Commercial Buildings, industrial, or official? Shimmering, iridescent cages of steel and copper and glass in which the principle of standardization becomes exquisite in all variety.

Homes? Growing from their site in native materials, no more "deciduous" than the native rock ledges of the hills, or the fir trees rooted in the ground, all taking on the character of the individual in perpetual bewildering variety.

The City? Gone to the surrounding country.

The landlords' exploitation of the herd-instinct seems to be exploded. That instinct is recognized as servile and is well in hand—but not in the landlord's hand.

A touch-stone now by way of the human-mind lies in reach of human-fingers everywhere to enable the human-being to distinguish and accept the quick and reject the dead!

It would seem after all, that this "new world" is simply a matter of being one's *self*.

Beech trees are welcome and allowed to be Beech trees because they are Beeches. Birches because they are Birches. Elms are not Oaks and no one would prefer them if they were, or get excited about making them so if they could.

Nor are Evergreens Christmas-trees.

Materials everywhere are most valuable for what they are—in themselves—no one wants to change their nature or try to make them like something else.

Men likewise—for the same reason: a reason everywhere working in everything.

So this new world is no longer a matter of seeming but of *being*.

Where then are we?

We are in a corner of the Twentieth Century emerging into the Twenty First—and the first Democracy of *being* not seeming.

The highest form of Aristocracy be it said the world has ever seen is this Democracy, for it is based upon the qualities that make the man a man.

We know, now, the tragedy of a civilization's lying to itself. We see the futility of expecting in hope, that a cul-

ture willing to deceive itself could or would know how to be sincere with others—or allow them happiness, or know happiness itself.

What an inglorious rubbish heap lies back there in the gloom of that duo-dimensional era! In that "Period" of superficial length and breadth with just enough "thickness" to make them hang together—for commercial purposes!

The "Period" of Fashion and Sham in which the "Picture" was the "cause" and not the consequence.

And the rubbish-heap gradually grew back there, useless, as the great simplicity of an Idea that was in itself an integrity rose to smite the Sham for what it was and proclaim, in fact, the Freedom we then professed.

SHAM and its brood—inbred by the ideals of "the classic" and its authority in education—fostered that duo-dimensional world beyond its ability to perform; educated it far and away beyond its capacity for life.

Character is Fate and invariably meets it. That old world was ripe for the rubbish heap and went to its destruction by the grinding of universal principles, grinding slow, nor yet so exceeding fine. For the awful simplicity of the Nazarene saw this "new world" at hand more than two thousand years ago. And here we are, two centuries later, only beginning to see it for ourselves.

Beginning to see it prepared by this simple enrichment of our *selves* in this sense of the "within" for our outlook. Beginning to understand and realize that the "Kingdom on Earth as it is in Heaven" of which He spoke was a Kingdom wherein each man was a King because Kingdom and King consisted of that quality of integrity of which, for lack of a better term, I have tritely spoken as the third-dimension. That all of the Beyond is within, is a truism.

And just so simple, although at the time less obvious, is the initiation of all great evolutionary changes whatsoever.

But this simple first principle of *being* that is now at work, for some strange reason came late and last.

Why?

We who have walked the Earth in eager search for the clear wine of Principle, tortured and denied or instead offered polluted water to quench an honest thirst, would like to know—why?

Were the Greeks poison? For us—yes. The Romans? More so.

Back there in the two-dimensional era we lived bewildered in a Roman-world—Romantic!

Not for nothing were we Romantic and did we speak a composite language corrupted from the Romance languages.

The honest Celt or Gaul or Teuton was corrupted by the Graeco-Roman corruption of the finer ancient culture of the Hellenes.

The Anglo-Saxon sanctified and re-corrupted the corruption, and polished sophistries, imprisoning abstractions, became recipes for good life in the name of the Good, the True and the Beautiful.

Hypocrisy for all cultivated men became as necessary as breathing and as "natural."

In order to be Beautiful—it became imperative to *lie!*

In order to *be* it became necessary to *seem.*

Art was a divorce from Nature.

"Nature" became the world of appearances round about us in our industrial life and all aspects of other individuals in relation to those appearances.

In the "Democracy" of the Nineteenth Century we witnessed the triumph of the insignificant as the fruit of the lie. A triumph by no means insignificant.

Some few unpopular individuals inhibited the "classic" in their education in that era, being afraid of it—seeing what it did to those who yielded to it, how it embalmed them in respectability and enshrined them in impotence. Seeing how it cut them off from Life and led them by the intellect into a falsified sense of living.

The precious quality in Man—Imagination—was shown the enticing objects man had made and shown them as so many "objectives." Therefore Imagination was offered patterns to the eye, not truths to the mind; offered abstractions to the Spirit not realities to the Soul. This was "Education."

To turn away from all that meant then,

owing to the supreme psychology of the herd, well—what it has meant.

Since one need no longer turn from reality to be respectable, all sacrifices in former worlds are made a privilege, something to have enjoyed.

For the scene has shifted. The burden—there is no burden like artificiality —has lifted.

Art having been "*artificiality*" for centuries has come through its terrible trial, hard put to it by the Machine—which stripped it to the bone—and lives.

It is living now because the Artifex survived the Artificer.

The Man has survived the Mime.

Be comforted—my young architect!

The "pictorial" still lives, for what it is, extended in this our new Usonian world, but as "consequence" not as "cause."

All we were given of love for the picturesque in gesture, form, color or sound —gifts to the five senses—is realized. Appearances are expanded into a synthesis of the five senses—we may call it a sixth if we please—and all become manifest materialization of Spirit.

Appearances are now a great assurance. A splendid enrichment of Life. The Pictorial is merely an incident, not an aim, nothing in itself or for itself or by itself; no longer an *end* sought for its own sake.

The picturesque? Therefore it is a by-product inevitably beautiful in all circumstances, from any and every point of view.

What wrought this miracle?

NATURE gradually apprehended as the principle of Life—the life-giving principle in making things with the mind, reacting in turn upon the makers.

Earth-dwellers that we are, we are become now sentient to the truth that living on Earth *is* a materialization of Spirit instead of trying to make our dwelling here a spiritualization of matter. Simplicity of Sense now honorably takes the lead.

To be good Gods of Earth *here* is all the significance we have here. A God is a God on Earth as in Heaven. And there will never be too many Gods.

Just as a great master knows no masterpiece, and there are no "favourite" trees, nor color, nor flowers; no "greatest" master; so Gods are Gods, and all are GOD.

Be specific? I hear you—Young Man in Architecture.

Shall I too paint pictures for you to show to you this new world?

Show you "pictures" that I might make?

Would you not rather make them for yourself?

Because any picture I could make would not serve you well.

A specific "picture" might betray you. You might take it for the thing itself—and so miss its merely symbolic value, for it could have no other value.

This new world so far as it lives as such is conditioned upon your seeing it for yourself—out of your own love and understanding. It is that kind of world.

As another man sees it, it might entertain you. Why should you be "entertained?"

His specific picture, the better it might be the more it might forestall or bind you. You have had enough of that.

For yourself, by yourself, within yourself, then, visualize it and add your own faithful building to it, and you cannot fail.

We are punished for discipleship—and, as disciples, we punish the thing we love.

Who, then, can teach? Not I.

It too is a gift.

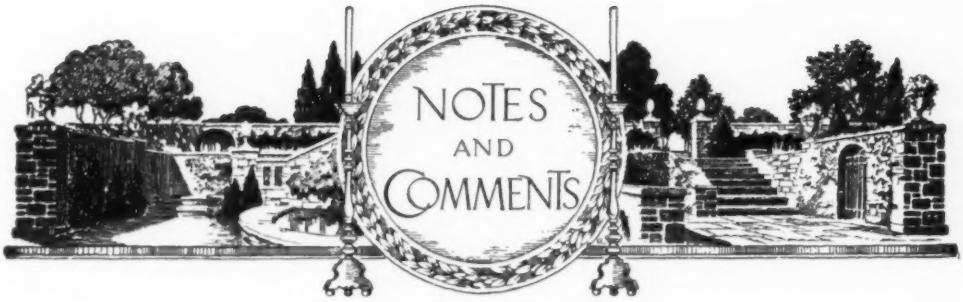
Already I have dared enough. Try to see—in work.

Idealism and Idealist are the same failure as Realism and Realistic. Both the same failure as Romance and Romantic.

Life is. We are.

Therefore we will loyally love, honestly work and enthusiastically seek, in all things—the one thing of Value—Life.

It is not found in pictorial shallows.



Yorktown

Nicholas Martian, one of George Washington's ancestors, was the original owner of the Yorktown site. It passed by marriage to Col. Geo. Reade, a King's Councillor from 1660 to 1671, and descended to his son, Benjamin, before it was divided by the King's order into building lots in 1691 as a Court House Town.

I was fortunate in making my first visit under the guidance of a descendant of Martian and Reade, Mrs. Willis W. Walker.

Few historic structures remain as the town was a center of action in three wars—The Revolutionary, 1776-82, The War of 1812 and the Civil War 1861-64.

The character of the village has been marred, too, by the frame houses erected during the World War, for it was here that the Atlantic fleet was held in readiness to issue through the Capes when their services were needed along the Atlantic Coast. Here, also, on a Government reservation, were ammunition stores and oil supplies.

It is interesting to note the conditions of the buildings whch remain and the result of restorations, made judiciously or injudiciously. Several one story brick residences, two brick structures of importance and the old brick Custom House are worthy of note. Looking down Main Street, taking in the Custom House and the more or less dilapidated small structures, a picturesque view presents itself. Imagination pictures a unique village, the frame structures eliminated, old buildings restored and the new ones designed on the same lines.

A few small dwellings attract special attentoin. One, a small residence (1725) now known as "Ye Old Yorktown Hotel" (although never used for this purpose until the Civil War) possesses an attractive front, though when viewed from the side it loses its charm because of the incongruous additions made to accommodate hotel guests. The porch along the front, a feature which contributes to the picturesqueness of the building, was not a part of the original structure, but was probably built in the early part of 1800. Tradition has it that such distinguished men as George Washington and Lafayette were entertained here, but this, according to the best authority, has no foundation in fact. The Swan Tavern was the place of entertainment in Yorktown until it was blown up, either accidentally or intentionally, when the town was in possession of General McClellan. Since Yorktown needs an inn (tourists there are numerous) how interesting to an architect would be the job of restoration and making additions in keeping with the tavern's historic past!

Another attractive small dwelling is the Digges House, claimed to date back as late as 1705. Its proportions and picturesque effect are most attractive. While in a state of more or less dilapidation it was purchased and restored by Mrs. Helen M. Paul of Michigan and is now occupied by Mr. and Mrs. Chenoweth, the latter being regent of the Comte de Grasse Chapter D.A.R. The restoration of this house by Wyatt and Nolting is conservative and pleasing. The walls of the first floor have been panelled and molded according to early existing examples of Georgian, producing an attractive and interesting interior. Critics may remark that houses of this character did not have panelled interiors but the effect is so good we may readily overlook this deviation.

The West House, a small frame building claimed to be built in 1706, is attractive in its proportions, steep pitched roof and Georgian porch which was evidently added after 1800

Across Main Street from the Digges residence is the old Custom House, built (according to the records) in 1706, and was not abandoned until a Custom House was established in Newport News sometime between 1881 and 1885. For many years it was the only port of entry for the Atlantic Seaboard. Architecturally, this two story brick structure with a

steep pitched hip roof is only interesting for its good proportions and old brickwork. The interior has little of the original work left. Recently this building was purchased by the Comte de Grasse D.A.R., their ambition being to preserve the exterior and to restore the interior to its original condition. An opportunity thus presents itself for some architect to make a study of interiors of that period and adapt it to the needs of our earliest Custom officials. In such a study it would be essential to capture the atmosphere and simplicity of those early days.

The Session House (so-called from the name of the original owner, a Mr. Session) was built in 1699, according to the records of the Shield family, the present owners. While I must doubt the date (the character of the work would indicate a time of about 1750), it is quite interesting as there is no evidence of alterations in either the exterior or the interior. It is simple and dignified both without and within and is a good example of old brickwork with quoins of Aquia Creek sandstone and a quaint steep roof with dormers. Inside the ornamentation is simple and the stairway is modestly concealed in a recess from the main hall.

The Nelson House, noted historically and architecturally, is the most imposing structure in Yorktown. The tract on which it was built came into possession of the Nelson family through a marriage with Margaret Reade, a descendant of the owner of the original plantation. The family give the date of building as 1711. Here again I must doubt the early date as in the case of the Session House.

The house was built by Wm. Nelson, President of the King's Council, and it descended to his son Thomas, who actively participated in the Revolution and became Governor. It remained in the Nelson family until 1907 when it was sold to Joseph Bryan of Richmond, and later transferred to Capt. George P. Blow, a resident of La Salle, Michigan.

The owners being absent, I was unable to gain access to the interior and can only pass an opinion of changes on the exterior and the treatment of the surroundings. To obtain additional bed-rooms many dormers have been added which spoil the dignified effect of the roof as shown in illustrations made before the alterations. The principle entrance, which was originally on the long side of the House, has been transferred to the gable end by the landscape treatment and a minor entrance has been made a major one. The old entrance, with semi-circular stone steps so common in the earlier Georgian, and old tree box are still in place, though now used not as an entrance but as a retired nook. The lavish expenditure on the landscape surrounding the house has destroyed the original dignity of treatment found in such houses as Gunston Hall, Shirley and others.

The granite memorial with its elaborately decorated base and shaft, erected to commemorate the hundredth anniversary of the surrender of Yorktown in 1881, designed by R. M. Hunt and J. Q. A. Ward, sculptor, does not look in keeping with its surroundings. One would much prefer to see here a simple shaft like that at Bunker Hill, or if something more imposing were necessary, like the Washington Monument in Baltimore.

GLENN BROWN.

Course in Ceramic Art Planned by Ohio State University

The bulletin of the Department of Fine Arts, Ohio State University, announces a curriculum in Ceramic Art. This course is planned to train men to serve in the clay, glass, and glass enamel ware plants as creative ceramists by equipping them with knowledge of materials, mixtures, and processes used in ceramic ware production, with the fundamental art concepts of ensemble possibilities of shape, quality, color, and decoration, and with appreciation of the service which particular clay and glass wares should give.

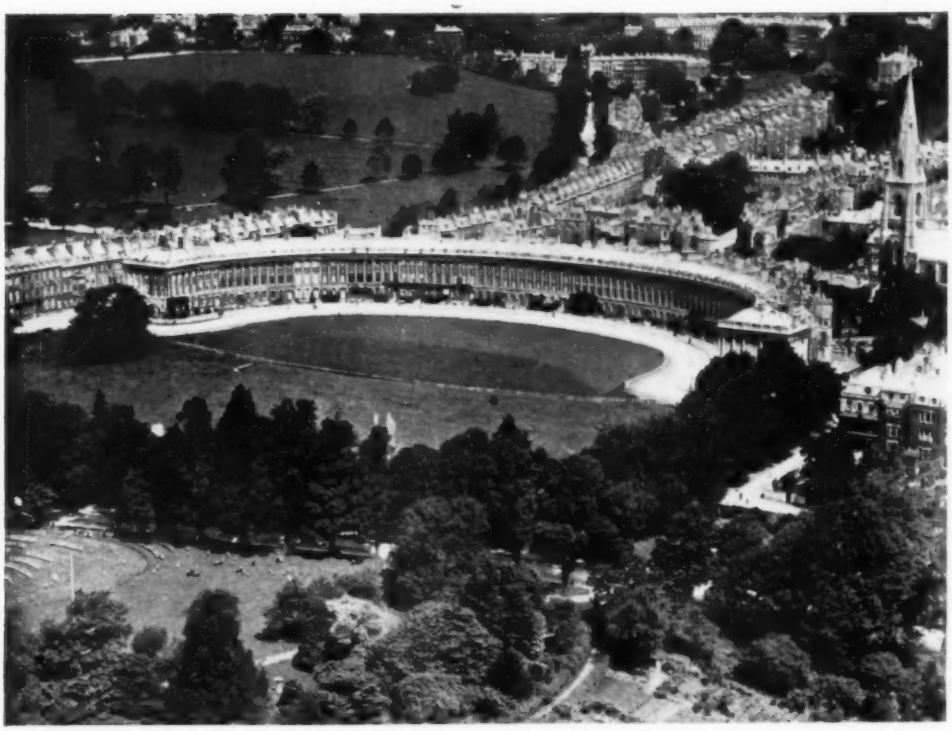
Arc Welding and the Lincoln Prizes

Arc welding in the structural field is receiving considerable attention not only from shop men in the structural steel fabricating industry, but from structural engineers and architects.

The structural future of arc welding depends primarily upon the resourcefulness and understanding of the latter group. It is thoroughly demonstrated that arc welds are economical and safe, comparing very favorably indeed with rivetting in these vital factors. Besides this, arc welded built-up sections as compared to rivetted compound girders are so economical that they open an entirely new field of engineering economics.

These possibilities will be realized only so fast and so far as they are understood by the architectural and engineering professions. And this again suggests that many members of these professions will take the opportunity to submit papers on arc welding for the Lincoln Arc Welding Prizes for 1927, totaling $17,500. The official statement of conditions has been published by the A. S. M. E. and a copy may be secured from the Secretary, Calvin W. Rice, 29 West 39th St., New York.

ENTRANCE GATES TO A RESIDENCE IN MONTCLAIR, N. J.
Clifford C. Wendehack, Architect



THE ROYAL CRESCENT, BATH

Preservation of the City of Bath

A notable experiment is now being made in Great Britain to preserve the Georgian city of Bath. Nowhere else can eighteenth century architecture and planning be seen to such perfection. Architecturally Bath is still eighteenth century, for owing to the fact that it ceased to be a centre of fashion in the days of Queen Victoria, and has never grown into a manufacturing town, it remains today much as it was two hundred years ago. It is, in fact, very much what Edinburgh is in Scotland, Versailles in France, or Pisa in Italy.

In some of the houses may still be seen the rooms where Beau Nash, Edmund Burke, Oliver Goldsmith, Wordsworth, Lord Nelson, the Earl of Chesterfield, Sir Walter Scott, and many other famous men of England's past lived, played and worked.

The Royal Crescent, designed by the architect Wood, is one of the finest colonnades in Europe. It is the segment of a very long ellipse, more than 600 feet from end to end, and in its scale is larger than any other similar work in England. Bath also contains the most important Roman buildings in Britain, including the Great Bath measuring 110 feet by 67 feet. In the eighteenth century Pump Room the original seats, made by Chippendale, are still in use.

Proud of so many treasures, the Corporation have taken steps during the past few months to protect the amenities of this delightful city. A special Act has been approved by the British Parliament, which may lead the way to further measures being taken in other parts of Great Britain for the protection of the architectural beauty of public and private buildings and prevent historic cities being spoilt by new buildings designed out of harmony with the old.

The Bath Corporation Act of 1925 provides for the setting up of a standing Advisory Committee of three members, of whom one shall be a Fellow of the Royal Institute of British Architects to be nominated by the President of that Institute, one a Fellow of the Surveyor's Institute, to be nominated by the President, and one a Justice of the Peace to be nominated by the Council.

The Council are enabled to make by-laws providing in such manner as they think necessary for deposit of drawings of the elevations and particulars as to the materials to be used

THE ROMAN BATH, BATH

in the erection of any building within the city or any addition to an existing building or of a chimney exceeding 45 feet in height.

If the Corporation consider that having regard to the general character of the buildings in the city or of the buildings proposed therein to be erected, the building upon or to which the addition is to be constructed or reconstructed, to which the elevations relate, would seriously disfigure the city, whether by reason of the height of the building or addition of chimney or its design or the materials proposed to be used, they may refer the question of approval to the Advisory Committee. If the matter is so referred to the Committee, nothing may be done to the building until the elevations have been approved.

The Advisory Committee may determine any matter referred to them in such manner as they in their discretion shall think fit and must give their decision within one month. The costs of any reference to the Advisory Committee shall be paid as they may direct.

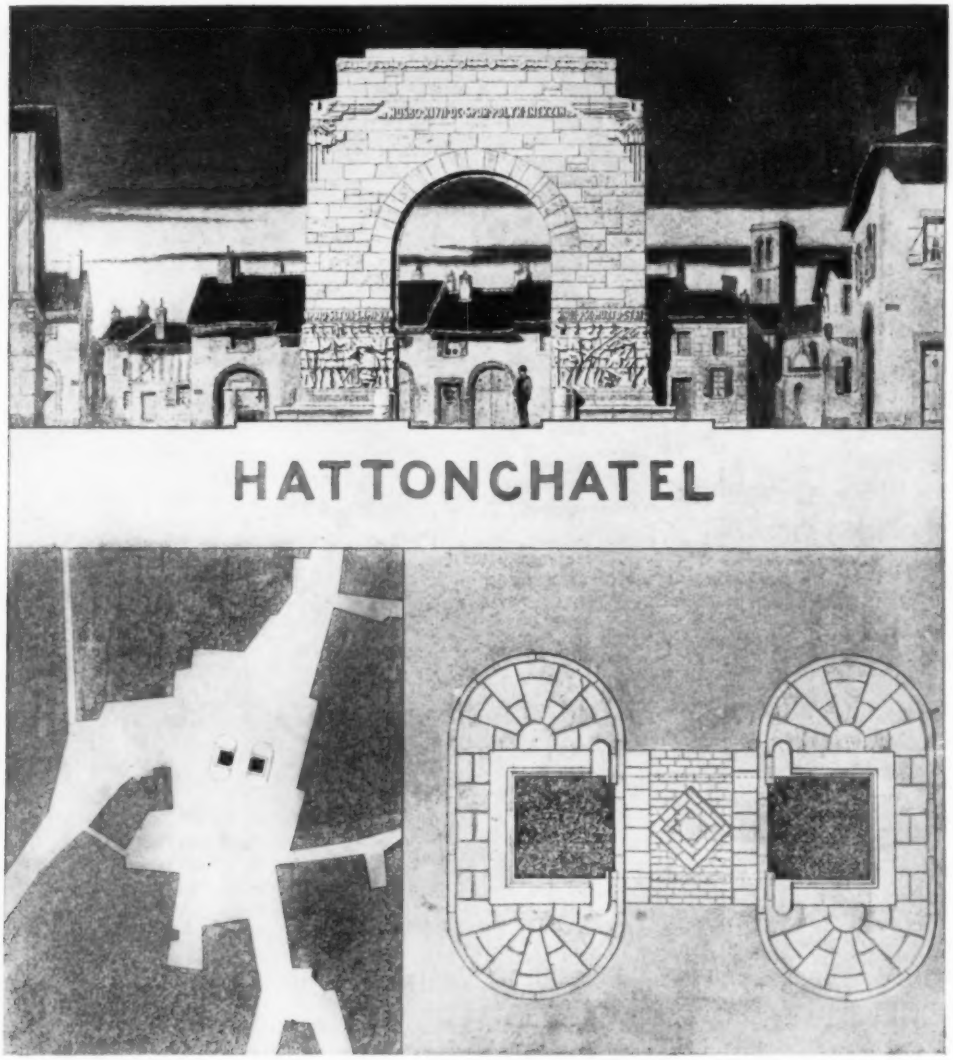
The Corporation shall pay the members of the Advisory Committee such reasonable fees and expenses as the Corporation think fit.

Another interesting provision in the Act is contained in Section 132, which makes certain restrictions as to advertisement hoardings. Also by Section 110 the Corporation are given power to prohibit any banner, streamer, sign or lettering suspended across or hung over any street for the purposes of advertisement or announcement, if they consider it injures the amenities of the city.

B. S. TOWNROE

Correction

In an article on The Graybar Building published in the September issue of THE ARCHITECTURAL RECORD, a misstatement unfortunately appears on Page 178, namely, "This huge concern (The Graybar Electric Company) which handles the entire output of the General Electric Company . . ." The latter phrase should have read ". . . which handles the entire output of the *Western* Electric Company."



A MEMORIAL ARCH FOR HATTONCHATEL, FRANCE

Designed by Rudolph Stanley Brown, George R. Harris and Alexander C. Robinson III, Cleveland, Ohio

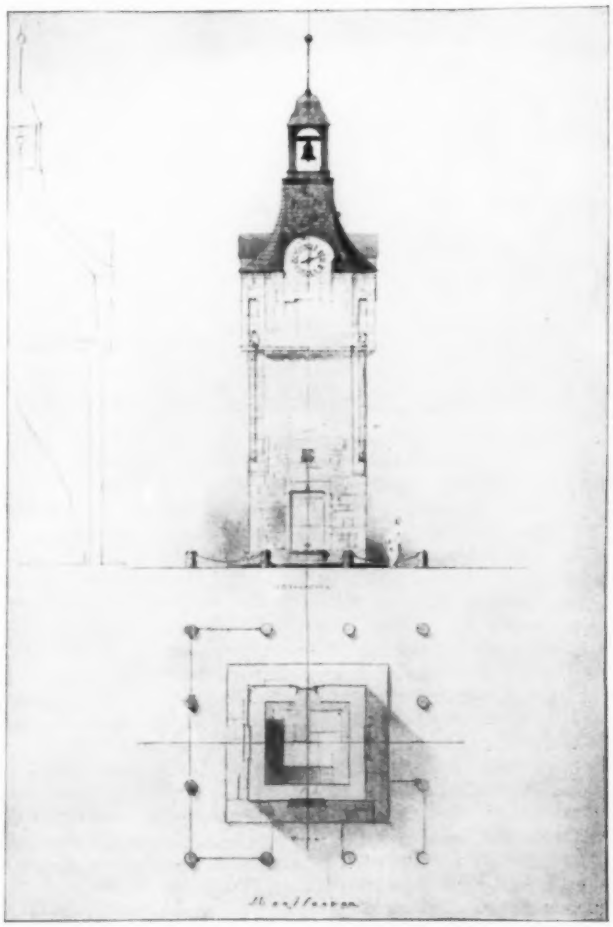
First Prize Designs in Ohio State Competition for Memorials to Be Erected in France and Belgium

Ohio's competition for designs suitable to commemorate the service of the Buckeye Division during the World War has resulted in first prizes being awarded for the drawings here reproduced.

Frank R. Walker and Harry E. Weeks of Cleveland designed a bridge to span the Escaut river near Eyne, Belgium. A clock tower to be erected at Montfaucon, France, is the design of Robert R. Reeves of Columbus. Rudolph Stanley Brown, George R. Harris and Alexander C. Robinson III of Cleveland collaborated in the design for a memorial arch to be built at Hattonchatel, France.

In each case the aim of the successful competitor was to obtain harmony between a modern American structure and its Old World surroundings. The location of the memorials was chosen by a special commission after a careful survey of the battlefields.

A Memorial Bridge Designed by Frank R. Walker and Harry E. Weeks, Cleveland, Ohio



A Clock Tower Designed by Robert R. Reeves, Columbus, Ohio

FIRST PRIZE AWARDS FOR MEMORIALS TO BE ERECTED IN FRANCE AND BELGIUM

The Imperial Palaces of Peking*

This is an important work by a distinguished scholar known hitherto principally, at least to me, for his writing on Italian art, on Leonardo and on Giotto. He is Professor in the University of Stockholm. During a stay in Peking in 1922 he obtained extraordinary facilities for photographing in the Forbidden City. It is a crucial time for such work because it was impossible until recently to take any such photographs, and now the palaces are neglected, tending to decay and, being of wood, may be burnt up at any time. Things have moved fast of late in ancient and leisurely Cathay. Prof. Siren is not a specialist in Chinese art, or was not previously, but he knows how to go about his work and do it thoroughly. He feels that it has many shortcomings, but the rapidly progressing destruction, the uncertainty of any efficient protection in the future, and the probable increasing value of this photographic material led him to the decision to publish it as it stands.

Tai Ho Tien and Terrace. The Large Hall at the Central Point of the Forbidden City. From *Imperial Palaces*

Peking is built on the same site and on the same general plan as the original City of Kublai-Khan. It consists of two cities, both walled and moated; the southern called the Outer or Chinese City, and the northern called the Inner or Tartar City. The latter is seven or eight miles square and contains most of the public buildings and temples; a long lake, or series of lakes, where the "Sea Palaces" are; thirdly and chiefly the Purple or Forbidden City, a rectangle of about a mile by a mile and a quarter each way, also walled and moated. There are four large gates to the Forbidden City, one on each side, each with three archways and a crowning pavilion. The principal façades in the city all face south. The central section is an avenue nearly a third of a mile wide, or better, a succession of open squares lying in a straight line north and south, each enclosed by great masonry walls and deep roofed pavilions, the principal palaces running up its central axis. "The great mass of buildings enclosed within the precincts of the Forbidden City would no doubt make a bewildering impression, were it not for their regular arrangement and their uniformity of style." The wide area is divided into a great number of courts in fairly regular rows north and south, each containing as a rule three or five pavilions symmetrically arranged. The central section is the most regular; the other two contain not only residential compounds but also temples, gardens, parks, offices, and so on. The composition of a group is usually a large hall with one or two on either side balancing each other.

The larger halls are apt to stand on marble terraces elaborately carved and often finer than the wooden structures they support. The terrace system may have been introduced from

*The Imperial Palaces of Pekin, by Osvald Siren. 3 vols. 4 to, 274 pl. 12 architectural drawings and 2 maps. Pub. G. Oest, Paris and Brussels. 1926.

Wu Man, Southern Entrance to the Forbidden City from Within the City Looking South
From *Imperial Palaces*

India but there is hardly anywhere a finer example of it. The buildings they support are all wooden frames with high projecting roofs, and wall spaces filled in with brickwork or plastered clay. The roofs are sometimes hipped, pyramidal, or conical, but have always curving saddle roofs with deep eaves. The exterior effect depends largely on the gorgeous color—white marble terrace, red walls and pillars, and roofs of glazed yellow tile—the three colors, white, red and yellow set against the blue sky, green trees and the dark water of moats and canals. There is an immense amount of ornamental painting and sculpture, on brackets, panels, ceilings, balustrades; but the architectural beauty of these buildings depends mainly on the natural wooden construction, their perfect balance, their contrasts of color, their terraced position, their unity of style and artistic purpose. "The whole labyrinth of walls, courts, colonnades and roofs, is one great work of art, not an individual creation, but the result of a general growth (and decay) in accordance with the architectural principles and the ancient traditions of might and splendor, which have prevailed in the construction of all the great imperial palaces of China."

"More beautiful than any part of the Purple Forbidden City are the so called Sea Palaces which are built in and around the long lake to the west of the great enclosure." They are not palaces, however, though there are some fairly large temples and residential compounds. They reflect the more intimate, human and rural side of the old court life. Pavilions, temples and kiosks innumerable, for various uses and dating from various periods, nestle on the islands and along the shores. The lake was originally artificial. The water was collected into the Golden River, which feeds it, and the excavations were made some time in the twelfth century.

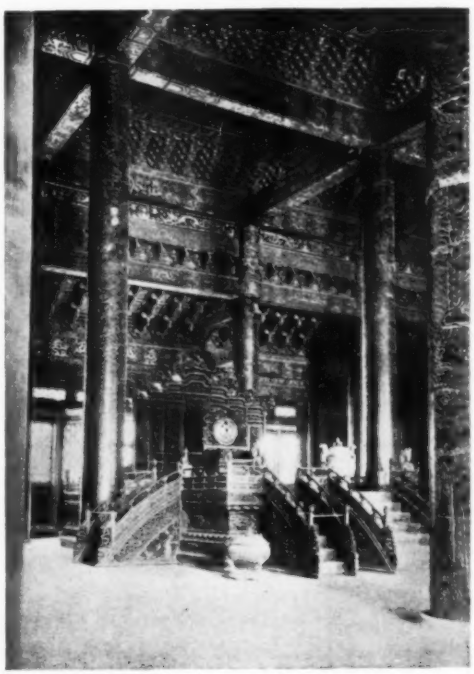
The summer palaces of the Ming dynasty lay south of Peking, and those of the seventeenth and eighteenth centuries northwest of the city some twenty miles; but they have practically all been destroyed, except the New Summer Palace, restored by the Empress Dowager thirty years ago. Their beauty depended more on their situations and their landscape gardening than on their architecture.

ARTHUR W. COLTON

The Georgian Period

Among the general works on early American Architecture, whether general in their makeup, in the territory they cover, or in the sense that they are aimed at the average thoughtful reader, we unqualifiedly give first place to William Rotch Ware's *The Georgian Period, being Photographs and Measured Drawings of Colonial Work with Text*,* recently issued in a revised edition, with modified classifications and indexes.

The subject matter and drawings in *The Georgian Period*, taken together, constitute a body of information so important that the place of the work in the estimation of student and professional designer could hardly be improved by any number of revised editions. This improved issue of the book, which is edited by an architect, Charles S. Keefe, may be expected to show its value, therefore, not in additions to the original, but in the redispositions of the serially published material of Mr. Ware's first edition, in favor of utility, efficiency and logical structure. It is like furnishing a tested old tool with a better working handle, a new helve on the timeworn axehead. Many an old stager, grown accustomed to the rather likable irregularities of Ware's *Georgian Period* will feel constrained in consulting the more reasonable arrangements of the revised form. The first edition encouraged browsing; while it was not disordered to confusion, it was, to say the least, somewhat uneven in its course, geographically, chronologically and otherwise. This is not said in disparagement, for it is fully realized, above all, that the idea of publishing Colonial work was new if not heretical, and Ware was training his writers and draftsmen to the new harness, which, by their results, they seem to have liked exceptionally well. Secondly, it will not be difficult to appreciate—and anyone who has served in an editorial capacity will feel it with sympathetic pain—that Ware had to take his material, indeed, pounce upon it, wherever he could find it, for whatever he had in hand was grist to his mill and a practical beginning for expansion. Of course, this spells anarchy for those who live by indexes and classifications, but we are willing to confess to the base opinion that this systematic lack of system did not reduce by one jot the size of the niche reserved for William Rotch Ware in that inner circle of the heavens which is the especial province of the makers of good books.



Details Within the Tai Ho Tien. The Imperial Throne. From *Imperial Palaces*

The second edition, then, does not set out to rectify the shortcomings of the first, but rather to regularize it, without loss of vitality, and this it does along these lines: The twelve parts of the original have been redisposed to form six; text and indexes have been brought together into the first part, and the 454 plates have been assembled in equal numbers in the other five. The indexes of the original have been worked over, rephrased in part, and some new ones added, so that now the chronological table of buildings by century and year, as well as the "alphabetical chronological tabulation" first published have been supplemented by a Geographical Index, a Subject Index of Plates, an Alphabetical List of Plates, and—praise be to their doughty pens and T-squares—a list of the contributing architects and draftsmen. In addition, the old General Index of Text and Illustrations has been remodeled as an Alphabetical, Geographical and Historical Index, which without as many adjectives might have meant the same thing. Plates have been classed as houses, churches and public buildings, and these groups further subdivided according to location.

*The Georgian Period. (Quarto, 6 vols. Vol. 1—Text and Indexes, pp. xlv + 306; vol. 2—pl. 1-79; vol. 3—pl. 80-154; vol. 4—pl: 155-228; vol. 5—pl. 229-341; vol. 6—pl. 342-454. New York; U. P. C. Book Co. $60.00.

We may say without stint that the revised form of the time worn *vade mecum* improves upon the old for the simple reason that it is more useful. The editor deserves at the hands of practitioners a full meed of praise for a yeoman job, and that especially from the younger generation of architects (how old these may be we do not venture to say), for they will be brought up on this second version of *The Georgian Period*, as their elders have been on the first.

RICHARD F. BACH.

NEW BOOKS ON ARCHITECTURE AND THE ALLIED ARTS

Spanish Influence on American Architecture and Decoration. By: R. W. Sexton. New York: Brentano's. 1927. 1st ed. 263 pp. Ill. Diagrs. 9⅛ x 12¼ in. Cloth. $10.00.

The illustrations record the progress made to date by leading architects in this country in evolving a pseudo-Spanish style, the chief inspiration of which has been derived from the houses of old Spain.

A History of Architecture in Italy, from the time of Constantine to the dawn of the Renaissance. Vols. I and II. By: Charles Amos Cummings, A.I.A. Introd. by Ralph Adams Cram, LL.D. Boston: Houghton, Mifflin Co. 1927. 2nd ed. Vol. I, xxiii. 314 pp. Vol. II. 325 pp. Ill. 6⅛ x 9¼ in. Cloth. $12.50.

"Here is a book worth reading. Here is the fascinating and little-known story of Architecture in Italy through the long period from the decline and fall of the Roman Empire to the beginning of the Renaissance. It is a story of almost equal interest for the student of the arts or the student of history. . . . I know of no other publication which so adequately covers the architecture of this most interesting period in the long history of Italy."—*Cass Gilbert.*

House Heating with Oil Fuel. By: P. E. Fansler, E.E. New York: Heating and Ventilating Magazine Co. 1927. 3rd ed. xii. 354 pp. Ill. 6¾ x 10 in. Cloth. $4.00.

Prepared specially for use by the heating and ventilating engineer, the heating contractor, architects, those engaged in the oil-burning industry, and for the user and potential user of oil-burning equipment, this volume contains thirty-two chapters covering the subject in all its phases. The treatment is such as to adapt it to the non-technical reader as well as to the man with an engineering background, as the author has the happy faculty of making technical subjects so comprehensive as to be readily grasped and visualized by the average reader.

Paris s'etend. By Georges-Benoit Lévy. Menton (A-M.), France. Georges-Benoit Lévy. 1927. 1st ed. 96 pp. Ill. 6⅞ x 8⅞ in. Paper. $1.50.

This book is a synopsis of the actual problems of Paris and of other great cities, a review of the various proposals for dealing with the regional planning of Paris, and an exposition of personal and original views on the future of Paris and of other great cities.

Formal Design in Landscape Architecture. By: Frank A. Waugh. New York: Orange Judd Publishing Co., Inc. 1927. 1st ed. 191 pp. Ill. 6 x 9¼ in. Substitute leather. Boxed. $3.50.

There was formerly a prejudice in America against the formal style of landscape architecture, but now the best landscape architects and amateurs are trying, not to make copies, but to use the same principles and to develop the same critical taste which guided the ancient artists. The present book sums up the whole matter from this point of view. The book begins from the standpoint of practical problems in America and shows how the direct solution of such problems leads to the same results. The book is simple, direct and of immediate value in the daily work of the amateur gardener, the professional landscape architect, the nurseryman, the park superintendent and everyone concerned in the making of parks and gardens.

Symbolism for Artists. By: Henry Turner and Ethel Pool. Worcester: The Davis Press. 1925. 1st ed. 240 pp. Ill. 4⅜ x 6⅞ in. Cloth. $5.00.

"Symbolism" does away with tedious hunting through dictionaries and encyclopedias in search of symbols and their meanings. Here are answers to such questions as: what is the symbol of Shortness of life (the hour glass), Eternity (the circle, or serpent with tail in his mouth) or, if you know the symbol, you can find out the meaning: Hat in the Ring (challenge, competition), Balanced Scales (Justice). So the list runs, page after page for 240 pages, giving you an alphabetical list of over 3000 symbols.

The Practical Decoration of Furniture. By: H. P. Shapland, A.R.I.B.A. New York: Payson and Clarke, Ltd., 1927. 1st ed. xiv. 15 pp. XLVIII plates. 8¾ x 11¼ in. Cloth. $5.00.

This is the third of a series of three books—(to be sold separately)—which constitute a complete encyclopedia of every type of decorative design. Each section is prefaced by a short history of the subject together with a description of technique, past and present, including modern mechanical methods.

RECENT TRADE PUBLICATIONS

issued by manufacturers of construction materials and equipment

[*These may be secured by architects on request direct from the firms that issue them, free of charge unless otherwise noted.*]

Mechanical Messengers. Series of pamphlets illustrating their speed and time-saving qualities. The use of pneumatic dispatch tubes in factories, wholesale houses, banks. How the system is used in the new Stevens Hotel, Chicago, to prevent delay in charging accounts. System enables retail stores to operate with a minimum of actual cash on hand and insures accuracy of sales. Pneumatic dispatch tubes help metropolitan dailies get news out quicker. Full description and complete information of system. Particulars of speed and operation. G. & G. Atlas Systems, Inc., 537 West Broadway, New York City. Ill.

Electric Refrigeration. Iroquois cabinets, syphon and sanitor. Construction, use,

advantages, size and full information and particulars. Advantages of the Iroquois electric refrigerating machine. Information on the compressor, condenser, automatic pressure-controlled switch, refrigerant, float valve, motor and cooling units. The Iroquis Electric Refrigeration Co. (Associate of The Barber Asphalt Co.), 1600 Arch St., Philadelphia, Pa. 6x9 in. 16 pp. Ill.

Plumbing. Catalogue for school, commercial, industrial and public buildings. Water closets, closet stalls and steel partitions, urinals, lavatories, wash sinks, wall drinking fountains, baths, sinks of all descriptions. Full information regarding manufacture and advantages of use. Information as to size, weight and price. Dimensions and installation particulars. Typical list of educational installations. James B. Clow & Sons, 201-299 No. Talman Ave. (P. O. Box NN), Chicago, Ill. 8½x11 ins. 112 pp. Ill.

Greenhouses, designed and built by King Construction Co. Size and full particulars of each with detailed drawings. King Construction Co., North Tonawanda, N. Y. Portfolio of 32 photographs. 8¼x10⅝ in.

Celite for Concrete. A. I. A. File No. 3b. Treatise on use of Celite. Advantages. Laboratory tests. Adaptation to all concrete work including bridges, tunnels, concrete buildings, etc. Mixing information. Use with calcium chloride, with harsh working aggregates, in stucco and plaster and in mortar mixtures. Specifications. Celite Products Co., The Celite Bldg., 1320 South Hope St., Los Angeles, Calif. 8½x11 in. 16pp. Ill.

Acoustics. Less Noise—Better Hearing. A. I. A. File No. 39b. The use of Acousti-Celotex in municipal auditoriums, banks and offices, schools and universities, churches, hospitals, dining rooms and cafeterias. Miscellaneous uses. Advantages of use and typical installations. Analysing the acoustics of auditoriums. Quieting by absorbing noise. Technical data on Acousti-Celotex and illustrations of types and sizes. Method of application. The Celotex Co., 645 North Michigan Ave., Chicago, Ill. 8x11½ in. 48 pp. Ill.

Lumber. West Coast Hemlock, its qualities and uses. Superiority for use as floors for homes, gymnasiums, clubs and factories. Built-in fixtures. Types of house siding. House framing and formwork. Details of grades and sizes. Recommended use of standard grades. West Coast Lumber Trade Extension Bureau, Stuart Bldg., Seattle, Wash. 8½x11 in. 20 pp. Ill.

Fuse Blocks. Knife Switches, Flush Range Switches. A. I. A. File No. 31c33. Catalogue No. 41. List of all types with prices. Drilling data and overall dimensions. Construction particulars. Frank Adam Electric Co., 3649 Bell Ave., St. Louis, Mo. 7¾x10¾ in. 28 pp. Ill.

Fireproofing Products. A. I. A. File No. 20b-1. Various types of YPS metal lath with details of construction, advantages, size and weight data, specifications. Loading tables. Advantages, use and specifications of stuccomesh, reinforcement for stucco construction. Economy stucco nail. Information on corner beads, Sharon channel, Box and Pencil channel. Advantages of YPS expanded metal; use and placing, full data. Copper steel coal doors and basement windows. Standard sizes; detailed drawings. Pin anchors, steel bridging and wall ties. Detailed specifications for metal lath construction. Details showing use of metal lath in stucco houses. The Youngstown Pressed Steel Co., Warren, Ohio. 8½x11 ins. 60 pp. Ill.

Oil Heating. How to select oil heating equipment. The supply of oil, the selection of satisfactory oil heating equipment and its proper installation. Different brands of oil heating equipment. Advantages and full information of systems with cross sections, detailed drawings, etc. Oil Heating Institute, 350 Madison Ave., New York City. 5½x8 in. 80 pp. Ill.

Cement and Concrete. Reference Book 1927. Information concerning road and street paving, sewage treatment plans, etc. Ready reference tables on road mileage, highway maintenance costs, cement production and use, etc. Durability and ultimate economy of Portland cement and concrete Concrete in architecture; beautiful examples. Results of tests. Portland Cement Association, 33 West Grand Ave., Chicago, Ill. 6x9 in. 56 pp. Ill.

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